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ELECTRICAL POWER PRODUCTION CAREER LADDER. AFSCS 54232, 54252, 5--ETC(U)  
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LEVEL II

9 OCCUPATIONAL SURVEY REPORT

(Final)

10 Harold T. Welch



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6 ELECTRICAL POWER PRODUCTION CAREER LADDER,  
AFSCs 54232, 54252, 54272, and 54299.

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USAF OCCUPATIONAL MEASUREMENT CENTER  
LACKLAND AFB TEXAS 78236

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## PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Electrical Power Production career ladder (AFSCs 54232, 54252, 54272, 54299). This project was directed by USAF Program Technical Training, Volume 2, dated October 1976. Authority for conducting occupational surveys is contained in AFR 35-2. Computer outputs from which this report was produced are available for use by operating and training officials.

The survey instrument was developed by First Lieutenant Rita M. Snyder, Inventory Development Specialist. Captain Harold T. Welch analyzed the survey data and wrote the final report. This report has been reviewed and approved by Lt Col Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis Section, Occupational Survey Branch, USAF Occupational Measurement Center, Lackland AFB, Texas, 78236.

Computer programs for analyzing the occupational data were designed by Dr. Raymond E. Christal, Occupational and Manpower Research Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Project Analysis and Programming Branch, Computational Sciences Division, AFHRL.

Copies of this report are available to air staff sections, major commands, and other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Lackland AFB, Texas 78236.

This report has been reviewed and is approved.

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## SUMMARY OF RESULTS

1. Survey Coverage. The Electrical Power Production job inventory was administered during the period October 1977 through February 1978. Survey results are based on responses from 1,785 of the 2,570 incumbents assigned to the 542X2/54299 career ladder. This represents 70 percent of all assigned personnel.
2. Career Ladder Structure. Ninety-five percent of the survey respondents comprised six major groups and three independent job types. Two groups consisted of two different levels of supervisors and managers. By far the largest group was that of portable generator operator/mechanics. Other groups identified included prime power plant operator/mechanics and arresting system personnel.
3. DAFSC and Experience Differences. In general, 5-skill level personnel perform all maintenance duties required of the specialty. The 7-skill level personnel perform an increased number of supervisory tasks and spend a greater percent of their time on these tasks than do the 5-skill level respondents. Conversely, the 7-level respondents spend less time and perform fewer maintenance and operating tasks. Superintendents perform primarily managerial functions and spend little time on supervisory and maintenance tasks. Similar trends were noted in the analysis of experience level (TAFMS) groups.
4. AFR 39-1 Evaluation. The AFR 39-1 specialty descriptions generally give a thorough and accurate picture of 5-, 7-, and 9-skill level duties. Although some tasks were performed by low percentages of the total sample population, there were functional groups identified which were primarily performing these tasks.
5. STS Analysis. With minor exceptions, the 542X2 STS appears to accurately represent all job functions performed by personnel in the career ladder.
6. CONUS Vs Overseas Analysis. A greater percentage of overseas incumbents work on aircraft arresting systems, while more of the CONUS incumbents work on portable generator sets. In addition, a greater percentage of personnel in CONUS are supervised by civilians than are personnel located overseas.
7. Utilization Problems. Nine percent of the members in this specialty spend much of their time working with aircraft arresting systems. Tasks involved with aircraft arresting systems do not utilize the training of Electrical Power Production specialists and may be more appropriate for another AFSC or for a specialty shredout.

OCCUPATIONAL SURVEY REPORT  
ELECTRICAL POWER PRODUCTION CAREER LADDER  
(AFSC 542X2)

INTRODUCTION

This is a report of an occupational survey of the Electrical Power Production career ladder (AFSCs 542X2) completed by the Occupational Survey Branch, USAF Occupational Measurement Center, during June 1978.

A previous occupational survey of this career ladder (then designated as AFS 543X0) was published in August 1973. The survey instrument, USAF Job Inventory AFPT 90-303-080, consisted of 592 tasks grouped under 19 duty sections and a background information section of 101 history variables. The inventory was administered to 1,634 respondents holding AFSC 543X0 or 50 percent of the total personnel assigned to the career ladder. The resulting Occupational Survey Report examined the career field structure, AFM 39-1 specialty descriptions, specialty training standard (STS), DAFSC and AFMS job descriptions and differences, task difficulty, background information, and training.

Since the 1973 survey, the career ladder has remained relatively stable even through a classification change occurred prior to the publication of AFR 39-1 dated October 1977. This change involved the elimination of the separate superintendent DAFSC 54390 in lieu of the broadened superintendent DAFSC 54299. In addition, the DAFSC identifiers were changed from 543X0 to 542X2.

The current project was a routine survey of the career ladder and addresses four areas: (1) development and administration of the survey instrument; (2) the job structure found within the career ladder and how this relates to skill level and experience level; (3) comparisons of the job structure with current career ladder documents such as the AFR 39-1 specialty descriptions and the Specialty Training Standard (STS); and (4) comparison of the current findings to the 1973 results.

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## INVENTORY DEVELOPMENT

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-543-109. The task list used in the previous survey served as the starting point for the development of the current job inventory. The previous task list was reviewed and revised through thorough research of current career ladder publications and directives. From this review, a new tentative task list was developed. Inventory developers then conducted personal interviews with a total of 21 electrical power production specialists at Sheppard AFB, Lackland AFB, Randolph AFB, Carswell AFB, Tinker AFB, and Peterson AFB to review the tentative task list for completeness and accuracy. After making any necessary revisions, this task list was then sent out to 61 experienced electrical power production personnel at operational bases in the field for their written review. The final task list was then compiled and consisted of 717 task statements grouped under 22 duty headings.

## SURVEY ADMINISTRATION

During the period October 1977 through February 1978, consolidated base personnel offices in operational units worldwide administered the inventory booklets to airmen holding the Electrical Power production DAFSCs.

Table 1 reflects the percentage distribution, by major command, of assigned personnel in the career ladder as of December 1977. Also reflected is the distribution, by major command, of respondents making up the final survey sample. The sample of 1,785 respondents represents 70 percent of the 2,570 assigned personnel in the career ladder.

Tables 2 and 3 reflect distribution of the survey sample in terms of DAFSC and TAFMS groups. As shown in Table 2, sampling of skill levels varies from a low of 27 percent for 9-skill levels to a high of 80 percent for 5-skill levels.



TABLE 1  
COMMAND REPRESENTATION IN THE SURVEY SAMPLE

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED PERSONNEL</u>	<u>PERCENT OF SURVEY SAMPLE</u>
AFCS	22	23
ADC	16	15
TAC	15	12
SAC	12	14
USAFE	8	7
PACAF	7	6
AAC	5	6
MAC	5	6
ATC	3	3
AFSC	3	4
AFLC	2	2
USAFSS	1	1
OTHER	1	1
TOTAL PERSONNEL ASSIGNED - 2,570		
TOTAL PERSONNEL SAMPLED - 1,785		
PERCENT OF PERSONNEL SAMPLED - 70%		

TABLE 2  
DAFSC DISTRIBUTION OF SURVEY SAMPLE

<u>DAFSC</u>	<u>NUMBER ASSIGNED</u>	<u>NUMBER SURVEYED</u>	<u>PERCENT OF ASSIGNED SAMPLED</u>
54232	247	123	50
54252	1,829	1,188	65
54272	494	394	80
54299	119	32	27

TABLE 3  
TAFMS DISTRIBUTION OF SURVEY SAMPLE

<u>MONTHS TIME IN SERVICE</u>	<u>NUMBER IN SAMPLE</u>	<u>PERCENT OF SAMPLE</u>
1-48	843	47
49-96	298	17
97-144	245	14
145-192	145	8
193-240	184	10
241+	68	4



## CAREER LADDER STRUCTURE

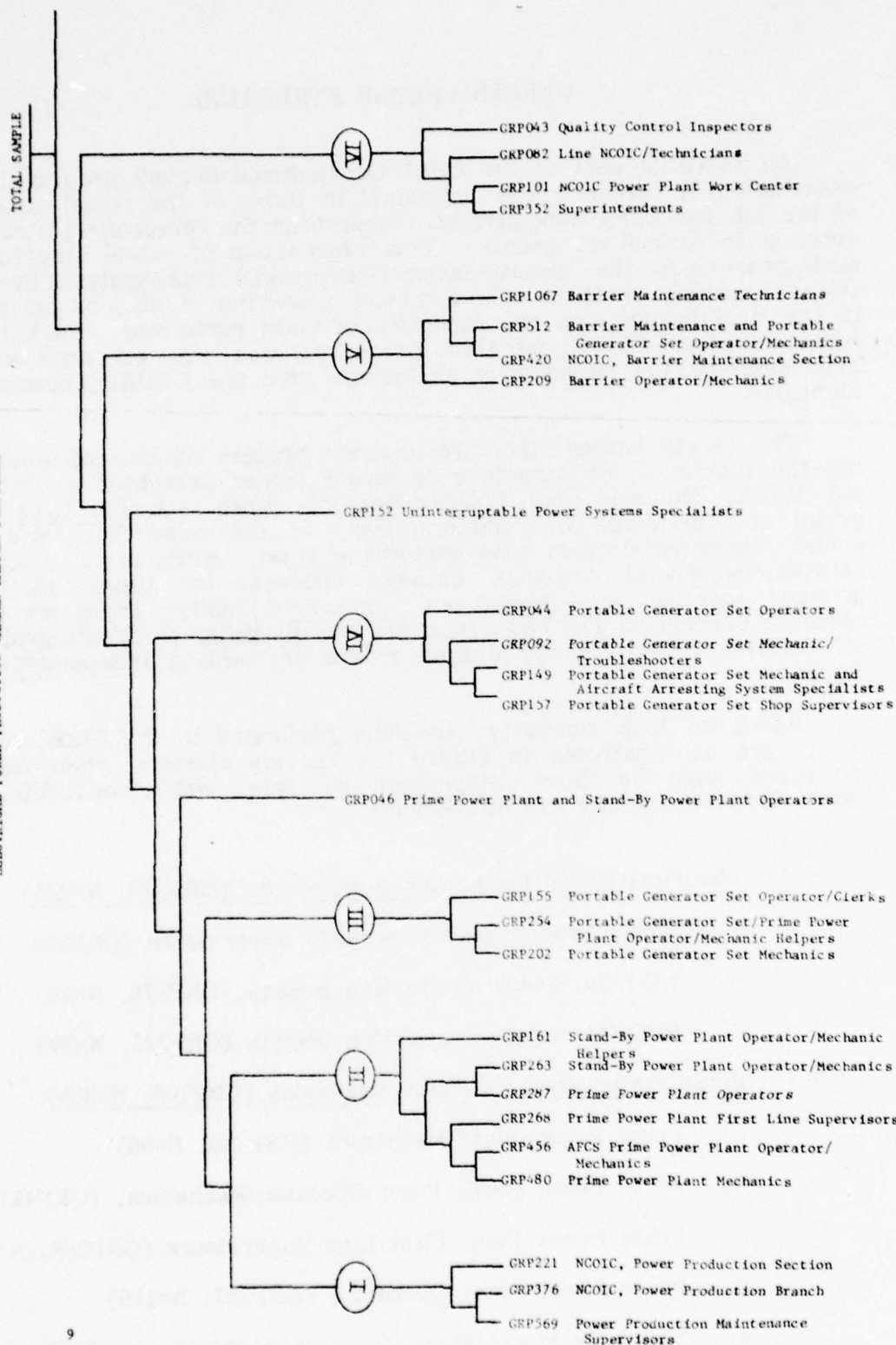
An essential part of the USAF Occupational Survey program is the examination of career ladder personnel in terms of the actual structure of the job functions they perform rather than the career field structure outlined in official documents. This examination of actual structure is made possible by the Comprehensive Occupational Data Analysis Programs (CODAP) which generate a hierarchical clustering of all jobs performed in the field based upon the similarity of tasks performed. Background factors such as DAFSC, job title, grade, position, etc. are used only to help describe the members of job groups that the CODAP process has identified.

The career ladder structure analysis process consists of determining the functional job structure of career ladder personnel in terms of job types, clusters, and independent job types. A Job Type is a group of individuals who perform many of the same tasks and also spend similar amounts of time performing them. When there is a substantial degree of similarity between different job types, they are grouped together and labeled as Clusters. Finally, there are often cases of specialized job types that are too dissimilar to be grouped into any cluster. These fairly unique groups are labeled Independent Job Types.

Based on task similarity, the jobs performed in the 542X2 career ladder are as illustrated in Figure 1. The six clusters, their related job types, and the three independent job types which constitute this career ladder structure are listed below.

- I. Electrical Power Production Supervisors (GRP097, N=225)
  - a. Power Production Maintenance Supervisors (GRP569, N=113)
  - b. NCOICs, Power Production Branch (GRP376, N=29)
  - c. NCOICs, Power Production Section (GRP221, N=30)
- II. Prime Power Plant Operator/Mechanics (GRP108, N=389)
  - a. Prime Power Plant Mechanics (GRP480, N=98)
  - b. AFCS Prime Power Plant Operator/Mechanics, (GRP453, N=16)
  - c. Prime Power Plant First Line Supervisors (GRP268, N=27)
  - d. Prime Power Plant Operators (GRP287, N=119)
  - e. Stand-By Power Plant Operator/Mechanics (GRP263, N=51)
  - f. Stand-By Power Plant Operator/Mechanic Helpers (GRP161, N=16)

FIGURE 1  
ELECTRICAL POWER PRODUCTION CAREER LADDER STRUCTURE



- III. Portable Generator Set and Power Plant Operator/Mechanics  
(GRP080, N=105)
  - a. Portable Generator Set Mechanics (GRP202, N=67)
  - b. Portable Generator Set and Prime Power Plant Operator/  
Mechanic Helpers (GRP254, N=24)
  - c. Portable Generator Set Operator/Clerks (GRP155, N=9)
- IV. Portable Generator Set Operator/Mechanics (GRP038, N=607)
  - a. Portable Generator Set Shop Supervisors (GRP157, N=216)
  - b. Portable Generator Set Mechanics and Aircraft Arresting  
System Specialists (GRP149, N=196)
  - c. Portable Generator Set Mechanics/Troubleshooters  
(GRP092, N=134)
  - d. Portable Generator Set Operators (GRP044, N=60)
- V. Aircraft Arresting System Specialists (GRP022, N=153)
  - a. Barrier Operator/Mechanics (GRP209, N=69)
  - b. NCOICs, Barrier Maintenance Section (GRP420, N=32)
  - c. Barrier Maintenance and Portable Generator Set Operator/  
Mechanics (GRP512, N=23)
  - d. Barrier Maintenance Technicians (GRP1067, N=10)
- VI. Electrical Power Production NCOICs and Superintendents  
(GRP012, N=159)
  - a. Superintendents (GRP352, N=59)
  - b. NCOICs Power Plant Work Center (GRP101, N=10)
  - c. Line NCOIC/Technicians (GRP082, N=10)
  - d. Quality Control Inspectors (GRP043, N=33)



### Independent Job Types

- a. Prime Power Plant and Stand-By Power Plant Operators (GRP046, N=49)
- b. Uninterruptable Power Systems Specialists (GRP152, N=17)
- c. Formal Training Instructors (GRP049, N=9)

Ninety-six percent of the respondents in this sample perform jobs that are generally equivalent to those identified in this analysis. The remaining four percent of the sample perform jobs that are not directly associated with the major groups of this career field.

### Group Descriptions

Brief descriptions of the major groups which encompass the important functions of the Electrical Power Production career ladder are given below. A detailed description of representative duties, distinguishing tasks, and common background characteristics for each group is presented in Appendix A. Table 4 reflects selected background data on each group, while Table 5 presents job satisfaction data.

1. Electrical Power Production Supervisors (GRP097). This cluster can be considered as a group of firstline supervisors who spend various amounts of time performing operating or maintenance tasks but who also perform some supervisory tasks. Thirteen percent of the survey respondents group together in this cluster. The members of this group are almost exclusively 5- or 7-skill level personnel. They have an average grade of 5.0, and an average of 9.5 years service. Sixty-five percent of the members supervise an average of four airmen.

Members of this group spend 16 percent of their time operating power plants and an additional 27 percent on supervisory duties such as directing and implementing. The remaining 57 percent of their job time is divided among eight technical duties which include such areas as maintaining gasoline or diesel engines and performing general power production tasks. As shown in Table 5, over 70 percent find their job interesting in addition to perceiving their training and talents as being well utilized.

Within this cluster, three distinct job types were identified. The Power Production Maintenance Supervisors group perform many maintenance tasks, with less time spent on supervisory tasks than the other two job types. The NCOIC, Power Production Branch group spend 45 percent of their time performing supervisory tasks, with the remainder of their time spent performing operating and maintenance tasks. And finally, the NCOIC, Power Production Section group supervise fewer people and spend a greater percent of time on operating power plant tasks. These three job types represent similar jobs differing primarily in the level of supervision performed by the respondents.



II. Prime Power Plant Operator/Mechanics (GRP108). This cluster represents 22 percent of the career ladder sample and is composed of six job types. Four of these groups are identified as Prime Power Plant Operators, Prime Power Plant Mechanics, AFCS Prime Power Plant Operator/Mechanics, and Prime Power Plant First Line Supervisors. Two other groups, identified primarily through background responses, are Stand-by Power Plant Operator/Mechanics and a group of helpers on their first job with this equipment. All of the groups within this cluster spend at least a quarter of their time performing tasks involving Operating Power Plants (Duty G) and the remainder of their time on general electrical production tasks and maintaining accessory systems. A very high percentage of the incumbents in this cluster perform preoperational inspections of engines and power plants, start or shut-down engines, monitor switchgear instruments, and monitor engine control instruments. This cluster has the highest proportion of 5-skill level incumbents and has one of the lowest averages for job interest and utilization of talents and training. It also has the lowest job difficulty index when compared to the other clusters, indicating a relatively easier job to learn.

III. Portable Generator Set and Power Plant Operator/Mechanics (GRP080). Members of this cluster spend similar percentages of time performing tasks involving Operating Power Plants (Duty G), and Operating and Maintaining Portable Generator Sets (Duty S). Their job appears to be a combination of tasks performed by groups II and IV. They perform single unit operations, engine run-ups, corrosion control, monitoring engine performance, and general maintenance tasks on portable generator sets, stand-by units, and prime power plants.

Three job types were identified; (1) mechanics, (2) helpers, and (3) operator/clerks. Generally, all three job types were performing similar tasks, with differences occurring in the percent time spent on tasks, the average number of tasks performed, and average time in service. The operator/clerks spend 11 percent of their time performing tasks involving Working with Forms, Records, Reports, Directives, or Technical Data (Duty E). In this group 22 percent are 7-skill level, 22 percent are female, and the low average number of tasks performed is relatively low.

IV. Portable Generator Set Operator/Mechanics (GRP038). This is the largest cluster of the career ladder (607 members) comprising 34 percent of the total sample. The job performed is one of general maintenance, including removal and replacement of power production equipment components, isolating malfunctions on portable generator sets, performing corrosion control, and single unit operation of portable generator sets. Members of the cluster indicated a very high level of job interest and the highest perception of utilization of talents and training.

The cluster has four job types, including Portable Generator Set Shop Supervisors, Mechanics/Troubleshooters, Operators, and one group which also worked with Aircraft Arresting Systems. The group of section supervisors indicated the highest job difficulty index in the

sample which is reflected by the extremely high average number of tasks performed. The group of mechanics/troubleshooters spend almost half their time performing tasks related to operating and maintaining portable generator sets and were primarily 5-skill level from a variety of commands. Within the group of Operators, 74 percent indicated they were in their first enlistment. The group working on aircraft arresting systems spent almost equal time working on Portable Generator Sets (21 percent) and Aircraft Arresting systems (30 percent). Most of the respondents from this group indicated they were in TAC, held a 5-skill level, and were in their first enlistment.

V. Aircraft Arresting Systems Specialists (GRP022). This cluster has four job types and represents nine percent of the career field. Members of this cluster spend 66 percent of their time performing tasks related to operating and maintaining aircraft arresting systems. Seventy-one percent are located overseas, and 47 percent are in their first enlistment.

Four job types were identified within this cluster: operator/mechanics, technicians, section NCOICs and a group working on barriers and portable generator sets. The operator/mechanics and technicians spend almost all their time working on aircraft arresting systems, with the technician group indicating a slightly higher average number of tasks performed and a higher job difficulty index. The section NCOIC group spends less time working on aircraft arresting systems, spending 25 percent of their time performing managerial duties.

The final job type in this cluster consisted of incumbents working primarily on arresting systems and portable generator sets. The respondents indicate they spend 67 percent of their time performing tasks related to operating and maintaining aircraft arresting systems, and only six percent of their time operating and maintaining portable generator sets. However, 74 percent of the members of this group indicated their present job title as Portable Generator Operator/Mechanic as well as Barrier Maintenance/Operation.

VI. Electrical Power Production NCOICs and Superintendents (GRP012). This cluster is similar to the first group of supervisors (I); however, they spend a much greater percent of their time performing managerial tasks and much less time on maintenance tasks. Members from the four job types which compose the cluster are in higher management levels than members of the first cluster and perform such tasks as establishing policies and procedures, evaluating equipment, and implementing programs.

In the superintendent job type, 73 percent of the respondents indicated a 7-skill level and 58 percent gave their job title as Power Production Superintendent. The NCOICs Power Plant Work Center group are 80 percent 7-skill level. Sixty percent of the group indicate they are overseas. The group of line NCOIC technicians spend most of

their time performing managerial duties: however, they also perform some hands-on maintenance. They are 90 percent 7-skill level and 80 percent indicate they work on portable generator sets. The group identified as Quality Control Inspectors spend 25 percent of their time performing Evaluations (Duty C). The remainder of their time is spent performing managerial and administrative tasks. There are no first enlistment incumbents but only 27 percent supervise subordinates.

Independent Job Types. There are three groups which did not align within any cluster. One is a small group of formal training instructors, with all but one respondent assigned to ATC. They spend 43 percent of their time performing training tasks (Duty D). There is also a group of Uninterruptable Power Systems specialists which appears to have a homogeneous job description with 75 of the first 100 most time consuming tasks performed by at least 50 percent of the sample group. All incumbents are assigned overseas and 94 percent are in AFCS. The final group is Prime Power Plant and Stand-by Power Plant Operators in training. This group performed an extremely low average number of tasks, has the lowest job difficulty index of the total sample, and has 80 percent of its members in their first enlistment. This is a very heterogeneous group with 50 percent or more performing only 15 of the first 100 most time consuming tasks.

### Summary

The analysis of the career ladder indicates two levels of supervisors. One level works on the line supervising and performing maintenance tasks. The other level supervises, performs staff work and inspections, trains, and performs very limited maintenance tasks. The largest job types are composed of incumbents performing maintenance or operating either portable generator sets or prime power plants. Another group is formed by incumbents who spend almost equal percentages of their time on both. Tasks performed by these incumbents are primarily monitoring and operating power production equipment, inspecting equipment, and cleaning, removing and replacing equipment components. Tasks of isolating malfunctions in equipment are performed by low percentages of these groups.

The group performing maintenance on aircraft arresting systems were very distinct indicating a job quite different from the rest of the career ladder. While performing in this job, these members of the career ladder require no knowledge of electronic principles. Their job is maintaining the barriers and the engines used with the barriers.

Another distinct job is that of the UPS Specialist. This group appears to perform tasks requiring a greater knowledge of electronic principles than the rest of the career field; these tasks are mostly isolating malfunctions in UPS.



TABLE 4  
SELECTED BACKGROUND INFORMATION FOR JOB CLUSTERS

	ELECTRICAL POWER PRODUCTION SUPERVISORS (N=225)	PRIME POWER PLANT OPERATOR/ MECHANICS (N=389)	PORTABLE GENERATOR SET AND POWER PLANT OPERATOR/ MECHANICS (N=105)	PORTABLE GENERATOR SET OPERATOR/MECHANICS (N=607)	AIRCRAFT ARRESTING SYSTEMS SPECIALISTS (N=153)	ELECTRICAL POWER PRODUCTION NCOICs/ SUPERINTENDENTS (N=159)
PERCENT MEMBERS IN FIRST ENLISTMENT	23	65	72	50	47	3
AVERAGE NUMBER OF TASKS PERFORMED	197	75	109	144	96	65
AVERAGE NUMBER OF PERSONS SUPERVISED	4	2	3	4	4	5
AVERAGE TIME IN CAREER FIELD (MONTHS)	104	47	40	73	72	170
AVERAGE TOTAL ACTIVE FEDERAL MILITARY SERVICE TIME (MONTHS)	114	54	48	81	82	193
PERCENT MEMBERS IN DAFSC 54232	2	9	10	7	8	1
PERCENT MEMBERS IN DAFSC 54252	58	83	80	69	69	11
PERCENT MEMBERS IN DAFSC 54272	35	6	10	20	20	72
PERCENT MEMBERS IN DAFSC 54299	2	-	-	-	1	15



TABLE 5  
JOB SATISFACTION INFORMATION FOR CLUSTERS AND INDEPENDENT JOB GROUPS  
(PERCENT MEMBERS PERFORMING)

	ELECTRICAL POWER SUPERVISORS	PRIME POWER PLANT OPERATOR/ MECHANICS	PORTABLE GEN. SET AND POWER PLANT OPERATOR/ MECHANICS	PORTABLE GEN. SET OPERATOR/ MECHANICS	AIRCRAFT APRESTING SYSTEMS SPECIALISTS	ELECTRICAL POWER PRODUCTION NCOs AND SUPERINTENDENTS	PRIME POWER PLANT AND STAND-BY POWER PLANT OPERATORS	UPS SPECIALISTS	FORMAL TRAINING INSTRUCTORS
I FIND MY JOB:									
DULL	10	24	13	11	10	10	45	24	0
SO-SO	19	26	24	19	22	12	18	0	0
INTERESTING	71	49	63	70	68	77	33	71	100
MY JOB UTILIZES MY TALENTS:									
LITTLE OR NOT AT ALL	25	40	31	19	25	17	67	24	11
FAIRLY WELL OR BETTER	75	60	69	81	75	83	33	76	89
MY JOB UTILIZES MY TRAINING:									
LITTLE OR NOT AT ALL	28	37	29	20	24	21	53	12	11
FAIRLY WELL OR BETTER	72	63	71	80	76	79	47	88	89
I PLAN TO REENLIST:									
NO OR PROBABLY NO	27	46	48	40	40	31	57	23	0
YES OR PROBABLY YES	64	45	41	50	54	60	33	59	100
NOT REPORTED	9	9	11	10	6	9	10	18	0

## ANALYSIS OF DAFSC GROUPS

Tasks and background data of DAFSC groups are also examined as part of each occupational analysis. This analysis allows for the identification of skill level differences and similarities. Furthermore, this data by DAFSC groups aids in the analysis of career ladder documents, such as the AFR 39-1 specialty descriptions and the Specialty Training Standard (STS).

Table 6 shows the relative percent time spent by all skill level groups on the various duties in the job inventory. As shown in the table, there are clear differences in the relative percent time spent by the 5-, 7- and 9-skill level groups on the various duties. Five-skill level respondents primarily use their job time performing general maintenance and operating duties, while 7-skill level respondents job time is divided between both operating and supervisory duties. The 9-skill level members use 85 percent of their job time performing managerial and supervisory tasks.

### Skill Level Descriptions

For the 5-skill level members, the pattern of tasks performed closely parallels the tasks discussed in Groups I, II, and IV in the CAREER LADDER STRUCTURE section (Electrical Power Production Supervisors, Prime Power Plant Operators/Mechanics, and Portable Generator Set Operators/Mechanics). These three groups are composed primarily of 5-skill level personnel and, along with the DAFSC 54252 personnel in the Portable Generator Set and Power Plant Operator/Mechanic and Aircraft Arresting System Specialists groups, define the 5-skill level job. As shown in Table 7, tasks most commonly performed by the 5-skill level respondents relate to the performance of general maintenance and operating tasks. These tasks include adjusting, inspecting or replacing equipment drive belts or chains, adding anti-freeze or rust inhibitors to cooling systems, and starting or shutting down engines.

There are clear differences between the 5- and 7-skill level respondents. Basically, the 7-skill level respondent's job is much broader than the 5-skill level's job in that it includes supervisory tasks in addition to general maintenance and operating tasks. This is exemplified by the clusters in which DAFSC 54272 members are found and in the tasks which they perform. Eighty percent of the 54272 DAFSC respondents were found in the Electrical Power Production Supervisors, Portable Generator Set Operators/Mechanics, and Electrical Power Production NCOICs and Superintendent Clusters (Clusters I, IV, and VI). Table 8, which lists tasks most clearly differentiating between 5- and 7-skill level respondents, shows that a higher percentage of 5-skill level respondents perform general maintenance tasks. This table also shows that a higher percentage of 7-skill level members perform supervisory tasks than do 5-skill level respondents. As shown

in both Tables 7 and 8, supervisory tasks performed by 7-skill level members include writing APRs, assigning personnel to duties, and counseling subordinates.

The 9-skill level respondents are divided between the Electrical Power Production Supervisors Cluster (Cluster I) and the Electrical Power Production NCOICs and Superintendents Cluster (Cluster VI). These members function as supervisors and managers, and spend little time on general maintenance duties. The primary difference, in terms of tasks performed, between 7- and 9-skill levels is that 7-skill level members perform supervisory and some general maintenance tasks, whereas the 9-skill level respondents concentrate on tasks relating to directing, implementing and evaluating. Table 9 shows those tasks which most clearly distinguish between the 7- and 9-skill level respondents. The tasks which are performed by 9-skill level respondents include evaluating compliance with work standards, conducting inspections and determining personnel requirement.

#### Summary

In general, 5-skill level personnel perform almost exclusively general maintenance and operating tasks whereas 7-skill level personnel perform a broad range of technical and general maintenance tasks but spend relatively small amounts of on-the-job time performing them. Superintendents perform primarily managerial functions and spend little time on supervisory or technical tasks.

TABLE 6  
PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

DUTIES	DAFSC 54252 (N=1,188)	DAFSC 54272 (N=394)	DAFSC 54299 (N=32)
<u>MANAGEMENT, SUPERVISION, AND ADMINISTRATION</u>			
A ORGANIZING AND PLANNING	4	13	25
B DIRECTING AND IMPLEMENTING	8	19	30
C EVALUATING	1	8	16
D TRAINING	1	5	6
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	6	10	9
TOTAL	20	55	86
<u>MAINTENANCE AND OPERATION</u>			
F INSTALLING FIXED ELECTRICAL POWER PRODUCTION EQUIPMENT	0	0	0
G OPERATING POWER PLANTS	17	6	2
H MAINTAINING ACCESSORY SYSTEMS	4	2	1
I MAINTAINING ELECTRICAL PROTECTIVE DEVICES	1	1	3
J MAINTAINING INTAKE AND EXHAUST SYSTEMS	2	1	0
K MAINTAINING GASOLINE OR DIESEL ENGINES	4	3	1
L MAINTAINING COOLING SYSTEMS AND GOVERNORS	4	2	1
M MAINTAINING ALTERNATORS AND EXCITERS	2	1	0
N MAINTAINING SWITCHGEAR	1	1	1
O MAINTAINING POWER PLANT LUBRICATION SYSTEMS	2	1	0
P MAINTAINING POWER PLANT FUEL SYSTEMS	2	1	0
Q MAINTAINING GAS TURBINE ENGINES	1	1	1
R OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	10	6	2
S OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	13	9	1
T OPERATE AND MAINTAIN AUTOMATIC TRANSFER PANELS	2	2	0
U OPERATE AND MAINTAIN UNINTERRUPTIBLE POWER SYSTEMS (UPS)	1	1	0
V PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	14	7	2
TOTAL	80	45	14



TABLE 7  
REPRESENTATIVE TASKS PERFORMED BY DAFSC 54252, 54272, AND  
54299 RESPONDENTS

TASKS	PERCENT MEMBERS PERFORMING
<u>DAFSC 54252 INCUMBENTS</u>	
L1 ADD ANTIFREEZE OR RUST INHIBITOR TO COOLING SYSTEMS	65
V1 ADJUST, INSPECT, OR REPLACE EQUIPMENT DRIVE BELTS OR CHAINS	64
V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT	64
G38 START OR SHUTDOWN ENGINES	62
G34 PERFORM PREOPERATIONAL INSPECTIONS OF ENGINES	59
H17 SERVICE OR CHARGE LEAD ACID TYPE BATTERIES	58
G35 PERFORM STAND-BY ENGINE RUN-UP	55
A5 COORDINATE POWER TRANSFER WITH USING AGENCIES	54
S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS	51
J9 INSPECT OR SERVICE AIR INTAKE FILTERS OR CLEANERS	50
<u>DAFSC 54272 INCUMBENTS</u>	
C19 WRITE AIRMAN PERFORMANCE REPORTS (APR's)	80
B56 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION SPECIALISTS (AFSC 54252)	75
B3 COUNSEL SUBORDINATES	75
A2 ASSIGN PERSONNEL TO DUTIES	75
B1 CONDUCT INSPECTIONS	70
A9 DETERMINE WORK PRIORITIES	70
A18 ORDER PARTS FOR SCHEDULED WORK	64
D17 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	64
E6 FILE OR UPDATE SYSTEM HISTORICAL RECORDS	64
A5 COORDINATE POWER TRANSFER WITH USING AGENCIES	64
<u>DAFSC 54299 INCUMBENTS</u>	
B1 CONDUCT INSPECTIONS	88
A8 DETERMINE PERSONNEL REQUIREMENTS	84
A13 ESTABLISH ORGANIZATION POLICIES, OFFICE INSTRUCTIONS (OI's), OR STANDARD OPERATING PROCEDURES (SOP's)	78
A3 COORDINATE ELECTRICAL GENERATING REQUIREMENTS WITH USING AGENCIES	78
C5 EVALUATE COMPLIANCE WITH WORK STANDARDS	78
B57 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION TECHNICIANS (AFSC 54272)	75
A6 DETERMINE EQUIPMENT REQUIREMENTS	75
C9 EVALUATE INSPECTION REPORTS OR PROCEDURES	70
C2 EVALUATE ALERT OR EMERGENCY PROCEDURES	66
A5 COORDINATE POWER TRANSFER WITH USING AGENCIES	60

TABLE 8

TASKS WHICH MOST CLEARLY DISTINGUISH BETWEEN DAFSC 54252 AND  
DAFSC 54272 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 54252	DAFSC 54272	DIFFERENCE
V28 PERFORM SHOP CLEAN-UP	85	60	+25
H17 SERVICE OR CHARGE LEAD ACID TYPE BATTERIES	58	37	+21
V24 PAINT ITEMS OTHER THAN POWER PRODUCTION EQUIPMENT	49	28	+21
G34 PERFORM PREOPERATIONAL INSPECTIONS OF ENGINES	59	39	+20
G35 PERFORM STAND-BY ENGINE RUN-UP	55	35	+20
G38 START OR SHUTDOWN ENGINES	62	42	+20
G32 PERFORM POSTOPERATION INSPECTIONS OF POWER GENERATING UNITS	56	38	+18
O9 REMOVE OR REPLACE LUBE OIL FILTERS OR STRAINERS	46	28	+18
V11 MAINTAIN AREA BEAUTIFICATION	76	58	+18
G17 OPERATE AIR STARTING SYSTEMS	48	31	+17
C19 WRITE AIRMAN PERFORMANCE REPORTS (APR's)	22	80	-58
B3 COUNSEL SUBORDINATES	22	75	-53
B56 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION SPECIALISTS (AFSC 54252)	27	75	-48
A26 PLAN OR SCHEDULE WORK ASSIGNMENTS	22	70	-48
D17 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	20	64	-44
A2 ASSIGN PERSONNEL TO DUTIES	31	75	-44
A9 DETERMINE WORK PRIORITIES	29	70	-41
C5 EVALUATE COMPLIANCE WITH WORK STANDARDS	9	49	-40
A12 ESTABLISH BENCH STOCK LEVELS	16	50	-34
E4 ESTABLISH OR MAINTAIN LIBRARY OF CURRENT TECHNICAL ORDERS, MANUALS, REGULATIONS OR OTHER PUBLICATIONS	18	49	-31

TABLE 9

TASKS WHICH MOST CLEARLY DISTINGUISH BETWEEN DAFSC 54272 AND  
DAFSC 54299 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 54272	DAFSC 54299	DIFFERENCE
V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT	53	6	+47
E6 FILE OR UPDATE SYSTEM HISTORICAL RECORDS	65	19	+46
L1 ADD ANTIFREEZE OR RUST INHIBITOR TO COOLING SYSTEMS	49	6	+43
B56 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION SPECIALISTS (AFSC 54252)	75	34	+41
A18 ORDER PARTS FOR SCHEDULED WORK	64	25	+39
V1 ADJUST, INSPECT, OR REPLACE EQUIPMENT DRIVE BELTS OR CHAINS	51	13	+38
E10 MAINTAIN MAINTENANCE LOG BOOKS	49	13	+36
S8 INTERPRET WIRING DIAGRAMS OF PORTABLE GENERATOR SETS	44	9	+35
E37 PREPARE REQUISITIONS FOR SUPPLIES OR EQUIPMENT	49	19	+30
A24 PLAN OR SCHEDULE ON-THE-JOB TRAINING (OJT)	62	34	+28
B49 PREPARE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	24	75	-51
C4 EVALUATE BUDGET REQUIREMENTS	16	59	-43
B2 CONDUCT STAFF MEETINGS	15	56	-41
B57 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION TECHNICIANS (AFSC 54272)	35	75	-40
A10 DRAFT BUDGET ESTIMATES	22	63	-39
C2 EVALUATE ALERT OR EMERGENCY PROCEDURES	29	66	-37
C18 SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	27	63	-36
A11 DRAFT OR REVIEW ORGANIZATIONAL STRUCTURE	15	50	-35
A8 DETERMINE PERSONNEL REQUIREMENTS	50	84	-34
C5 EVALUATE COMPLIANCE WITH WORK STANDARDS	49	78	-29



## ANALYSIS OF AFMS GROUPS

In general, the shift in emphasis from operating and maintenance tasks to supervision, as reflected in the DAFSC analysis, is also found across AFMS groups. Table 10 clearly illustrates this shift, showing percent time spent on supervisory duties increasing from 16 percent during the first enlistment to 60 percent for the fifth and subsequent enlistment groups and time spent on maintenance duties decreasing from 84 percent to 40 percent. However, an analysis comparing first enlistment personnel (1-48 months AFMS) with career personnel (over 48 months AFMS) revealed little difference in maintenance tasks performed.

The job of the first enlistment incumbent includes inspection of equipment, monitoring instruments, operating equipment and components, and removal or replacement of components. First enlistment members were found in all of the clusters identified in the career ladder structure except for the supervisory cluster. These incumbents spend 18 percent of their time operating power plants, 15 percent on general electric power production tasks, 14 percent working with portable generator sets, and 11 percent with aircraft arresting systems. Only five percent of their time is spent performing directing and implementing tasks.

The career incumbents spend 15 percent of their time directing and implementing, 11 percent operating power plants, 11 percent working with portable generator sets, and eight percent on aircraft arresting systems. The job of the career incumbent is similar to that of the first enlistment group as far as the performance of maintenance tasks. There were no maintenance tasks performed by a greater percentage of career incumbents than first enlistment incumbents. However, there were a large number of supervisory tasks performed by greater percentages of the career incumbents.

In summary, first enlistment airmen in this career ladder perform most of the maintenance tasks required of the AFSC. The job of working on electrical power production equipment or aircraft arresting systems does not change as the individual advances in AFMS. Increased responsibilities in supervision and management of personnel and resources begin late in the first enlistment and continue to increase throughout each enlistment group.

TABLE 10

PERCENT TIME SPENT ON DUTIES BY AFMS GROUPS

DUTIES	MONTHS AFMS (DAFSC 542X2)				
	1-48 (N=842)	49-96 (N=298)	97-144 (N=244)	145-192 (N=146)	193+ (N=252)
<u>MANAGEMENT, SUPERVISION, ADMINISTRATIVE</u>					
A ORGANIZING AND PLANNING	3	6	8	12	15
B DIRECTING AND IMPLEMENTING	6	10	12	17	21
C EVALUATING	1	2	3	7	21
D TRAINING	1	2	3	5	9
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	5	6	7	10	10
TOTAL	16	26	33	51	60
<u>OPERATING AND MAINTAINING</u>					
F INSTALLING FIXED ELECTRICAL POWER PRODUCTION EQUIPMENT	*	*	*	*	*
G OPERATING POWER PLANTS	18	15	12	8	6
H MAINTAINING ACCESSORY SYSTEMS	4	3	3	2	1
I MAINTAINING ELECTRICAL PROTECTIVE DEVICES	1	1	1	1	1
J MAINTAINING INTAKE AND EXHAUST SYSTEMS	2	2	2	1	1
K MAINTAINING GASOLINE OR DIESEL ENGINES	4	4	3	3	2
L MAINTAINING COOLING SYSTEMS AND GOVERNORS	4	3	3	3	2
M MAINTAINING ALTERNATORS AND EXCITERS	2	2	2	2	1
N MAINTAINING SWITCHGEAR	1	1	1	2	1
O MAINTAINING POWER PLANT LUBRICATION SYSTEMS	2	2	1	1	1
P MAINTAINING POWER PLANT FUEL SYSTEMS	3	2	2	2	1
Q MAINTAINING GAS TURBINE ENGINES	1	*	1	*	1
R OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	11	10	12	6	6
S OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	13	13	11	8	8
T OPERATE AND MAINTAIN AUTOMATIC TRANSFER PANELS	2	2	2	1	1
U OPERATE AND MAINTAIN UNINTERRUPTABLE POWER SYSTEMS (UPS)	1	1	*	1	*
V PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	15	12	11	7	6
TOTAL	84	74	67	49	40

\* LESS THAN ONE PERCENT PERFORMING

## CONUS/OVERSEAS ANALYSIS

The analysis of CONUS and Overseas groups compares the tasks performed by the 783 DAFSC 54252 personnel assigned within the Continental U.S. and the 408 DAFSC 54252 members assigned overseas. Table 11 lists those tasks with the greatest difference of percent members performing between the two groups of 5-skill level respondents. In general, a higher percentage of CONUS personnel were performing tasks involving Operating and Maintaining Portable Generator Sets (Duty S) while more overseas personnel performed tasks involving Operating and Maintaining Aircraft Arresting Systems (Duty R), specifically on the BAK-13 barrier.



TABLE 11

REPRESENTATIVE TASKS SHOWING GREATEST DIFFERENCE BETWEEN DAFSC 54752 PERSONNEL ASSIGNED  
CONUS AND THOSE ASSIGNED OVERSEAS

TASKS	(PERCENT MEMBERS PERFORMING)		
	CONUS	OVERSEAS	DIFFERENCE
L1 ADD ANTIFREEZE OR RUST INHIBITOR TO COOLING SYSTEM	73	50	+23
S33 REMOVE, CLEAN, OR REPLACE LUBE OIL FILTERS OR STRAINERS ON PORTABLE GENERATOR SYSTEMS	53	35	+18
S35 REMOVE OR REPLACE BATTERIES ON PORTABLE GENERATOR SETS	56	38	+18
S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS	57	39	+18
L27 TEST ENGINE COOLANTS	36	19	+17
S27 PERFORM PERIODIC/PREVENTATIVE MAINTENANCE ON COOLING SYSTEMS OF PORTABLE GENERATOR SETS	48	32	+16
S8 INTERPRET WIRING DIAGRAMS OF PORTABLE GENERATOR SETS	47	32	+15
S29 PERFORM PREOPERATIONAL INSPECTIONS OF PORTABLE GENERATOR SETS	54	39	+15
S79 TEST PORTABLE GENERATOR SETS USING PORTABLE LOAD BANKS	45	29	+15
S52 REMOVE OR REPLACE SOLID STATE COMPONENTS ON PORTABLE GENERATOR SETS	34	19	+15
R26 INSPECT TURBINE OR COOLANT TANK FLUID LEVELS OF THE BAK-13	2	18	-16
R4 ADJUST BREAKAWAY TENSIONS ON THE BAK-13	2	18	-16
R38 ISOLATE MALFUNCTIONS IN TIGHT WRAP ROLLER SYSTEM OF THE BAK-13	1	14	-13
R31 ISOLATE MALFUNCTIONS IN THE COOLANT SYSTEM OF THE BAK-13	1	12	-11
R33 ISOLATE MALFUNCTIONS IN THE ENERGY ABSORBER OF THE BAK-13	1	12	-11

## ANALYSIS OF TASK DIFFICULTY

From a listing of airmen identified for this job survey, members with a 7- or 9-skill level from various commands and locations were selected to rate task difficulty. Tasks were rated on a nine-point scale from extremely low to extremely high difficulty, with difficulty defined as the length of time it takes an average airman to learn to do the task. Interrater reliability (as assessed through components of variance of standard group means) for the 82 raters who returned booklets was .97. Ratings were adjusted so that tasks of average difficulty have ratings of 5.00.

A listing of representative tasks rated above average in difficulty is given in Table 12. Generally, the tasks rated most difficult are those relating to isolating malfunctions on various systems such as static and rotary uninterruptable power systems (UPS), switchgear maintenance systems, and brake assemblies. Management tasks are also rated above average in difficulty.

Table 13 provides a listing of representative tasks rated below average in difficulty. These tasks relate primarily to internal combustion engine maintenance, general operating tasks of power generating units, and cleaning tasks.

### Job Difficulty Index (JDI)

Having computed the task difficulty index for each inventory item, it is possible to compute the Job Difficulty Index (JDI) for groups identified in the survey analysis. This index provides a relative measure by which jobs, when compared to other jobs identified, are interpreted to be more or less difficult. The JDI is based on an equation using number of tasks performed and the average difficulty per unit time spent. The indices are adjusted so that the average job difficulty index is 13.00. The JDI was computed for the job types and clusters identified in the CAREER LADDER STRUCTURE.

Table 14 presents the JDIs for the clusters and job types identified in the career ladder structure section. Generally, supervisory jobs in addition to technical jobs relating to portable generators and aircraft arresting systems were rated as relatively more difficult than those jobs performed by any other job group. In particular, the Electrical Power Production Supervisors, Portable Generator Set Operators/Mechanics and Aircraft Arresting Systems Specialists clusters have JDIs of 17.4, 15.4, and 13.3 respectively. These personnel generally perform tasks with high difficulty indices, such as directing the maintenance of diesel engines and isolating malfunctions in starter systems and electrical systems. Technical jobs relating to the operation and maintenance of power plants generally were rated as relatively less

difficult than other job groups identified. Prime Power Plant Operators/Mechanics, and Portabel Generator Set and Power Plant Operators/Mechanics clusters have JDIs of 8.9 and 11.9 respectively. These two groups generally perform tasks with low difficulty ratings such as preoperational inspections of engines and removing or replacing batteries on portable generator sets. One particular group, GRP046, Prime Power Plant and Stand-by Power Plant Operators has an extremely low JDI of 3.7. This is due to the few average number of tasks performed, 27, and the relative ease with which the job can be learned.



TABLE 12

REPRESENTATIVE TASKS RATED ABOVE AVERAGE IN DIFFICULTY WHICH ARE PERFORMED BY  
30 PERCENT OR MORE OF DAFSC 542X2 RESPONDENTS

TASK	DIFFICULTY INDEX	PERCENT MEMBERS PERFORMING
S8 INTERPRET WIRING DIAGRAMS OF PORTABLE GENERATOR SETS	6.49	41
S17 ISOLATE MALFUNCTIONS IN VOLTAGE REGULATOR CIRCUITS ON PORTABLE GENERATOR SETS	6.43	32
S15 ISOLATE MALFUNCTIONS IN SAFETY CIRCUITS ON PORTABLE GENERATOR SETS	6.06	35
C19 WRITE AIRMAN PERFORMANCE REPORTS (APR'S)	5.57	34
S14 ISOLATE MALFUNCTIONS IN MB-TEEN BATTERY CHARGING SYSTEMS	5.51	35
S16 ISOLATE MALFUNCTIONS IN STARTER SYSTEMS ON PORTABLE GENERATOR SETS	5.49	37
K12 ISOLATE MALFUNCTIONS IN GASOLINE ENGINE IGNITION SYSTEMS	5.36	31
B19 DIRECT MAINTENANCE OF DIESEL ENGINES	5.31	41
B38 DIRECT TRAINING OF OTHER AFSC PERSONNEL ON POWER PRODUCTION EQUIPMENT	5.30	30
B3 COUNSEL SUBORDINATES	5.26	34
A6 DETERMINE EQUIPMENT REQUIREMENTS	5.21	37
B20 DIRECT MAINTENANCE OF FUEL SYSTEMS	5.20	36
G9 INSPECT BLOWERS OR TURBOCHARGERS FOR PROPER OPERATION	5.13	31
B12 DIRECT MAINTENANCE OF EMERGENCY GENERATOR SETS	5.11	33
K11 ISOLATE MALFUNCTIONS IN GASOLINE ENGINE FUEL SYSTEMS	5.09	33
K19 PERFORM TUNE-UP ON GASOLINE ENGINES	5.07	36

TABLE 13

REPRESENTATIVE TASKS RATED BELOW AVERAGE IN DIFFICULTY WHICH ARE PERFORMED BY  
50 PERCENT OR MORE OF DAFSC 542X2 RESPONDENTS

TASK	DIFFICULTY INDEX	PERCENT MEMBERS PERFORMING
B1 CONDUCT INSPECTIONS	4.18	51
B4 DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS	4.01	56
V1 ADJUST, INSPECT, OR REPLACE EQUIPMENT DRIVE BELTS OR CHAINS	3.93	60
G2 ADJUST ENGINE CONTROL AFTER STARTING	3.91	52
V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT	3.87	59
G32 PERFORM POSTOPERATION INSPECTIONS OF POWER GENERATING UNITS	3.85	51
A5 COORDINATE POWER TRANSFER WITH USING AGENCIES	3.84	55
H17 SERVICE OR CHARGE LEAD ACID TYPE BATTERIES	3.76	52
G34 PERFORM PREOPERATIONAL INSPECTIONS OF ENGINES	3.71	54
L1 ADD ANTIFREEZE OR RUST INHIBITOR TO COOLING SYSTEMS	3.19	60
G38 START OR SHUTDOWN ENGINES	3.19	57
V11 MAINTAIN AREA BEAUTIFICATION	2.95	71
V28 PERFORM SHOP CLEAN-UP	2.55	79

TABLE 14

## JOB DIFFICULTY INDICES FOR CAREER LADDER GROUPS

GROUPS	JOB DIFFICULTY INDEX*
I. ELECTRICAL POWER PRODUCTION SUPERVISORS (GRP097)	17.4
A. POWER PRODUCTION MAINTENANCE SUPERVISORS (GRP569)	17.1
B. NCOICS, POWER PRODUCTION BRANCH (GRP376)	19.5
C. NCOICS, POWER PRODUCTION SECTION (GRP221)	12.9
II. PRIME POWER PLANT OPERATOR/MECHANICS (GRP108)	8.9
A. PRIME POWER PLANT MECHANICS (GRP480)	11.6
B. AFCS PRIME POWER PLANT OPERATOR/MECHANICS (GRP453)	11.8
C. PRIME POWER PLANT FIRST LINE SUPERVISORS (GRP268)	10.7
D. PRIME POWER PLANT OPERATORS (GRP287)	6.0
E. STAND-BY POWER PLANT OPERATOR/MECHANICS (GRP263)	8.0
F. STAND-BY POWER PLANT OPERATOR/MECHANIC HELPERS (GRP161)	5.9
III. PORTABLE GENERATOR SET AND POWER PLANT OPERATOR/MECHANICS (GRP080)	11.9
A. PORTABLE GENERATOR SET MECHANICS (GRP202)	13.6
B. PORTABLE GENERATOR SET PRIME POWER PLANT OPERATOR/MECHANIC HELPER (GRP254)	8.0
C. PORTABLE GENERATOR SET OPERATOR/CLERKS (GRP155)	9.8
IV. PORTABLE GENERATOR SET OPERATOR/MECHANICS (GRP038)	15.4
A. PORTABLE GENERATOR SET SHOP SUPERVISORS (GRP157)	19.2
B. PORTABLE GENERATOR SET MECHANICS AND AIRCRAFT ARRESTING SYSTEM SPECIALISTS (GRP149)	16.0
C. PORTABLE GENERATOR SET MECHANIC/TROUBLESHOOTERS (GRP092)	12.4
D. PORTABLE GENERATOR SET OPERATORS (GRP044)	12.4
V. AIRCRAFT ARRESTING SYSTEMS SPECIALIST (GRP022)	13.3
A. BARRIER OPERATOR/MECHANICS (GRP209)	10.0
B. NCOICS, BARRIER MAINTENANCE SECTION (GRP420)	16.6
C. BARRIER MAINTENANCE AND PORTABLE GENERATOR SET OPERATOR/MECHANICS (GRP512)	16.3
D. BARRIER MAINTENANCE TECHNICIANS (GRP1067)	16.6
VI. ELECTRICAL POWER PRODUCTION NCOICS AND SUPERINTENDENTS (GRP012)	12.5
A. SUPERINTENDENTS (GRP352)	14.8
B. NCOICS POWER PLANT WORK CENTER (GRP101)	9.1
C. LINE NCOIC/TECHNICIANS (GRP082)	11.0
D. QUALITY CONTROL INSPECTORS (GRP043)	10.7
INDEPENDENT JOB TYPES	
A. PRIME POWER PLANT AND STAND-BY POWER PLANT OPERATORS (GRP046)	3.7
B. UNINTERRUPTABLE POWER SYSTEMS SPECIALIST (GRP152)	16.9
C. FORMAL TRAINING INSTRUCTORS (GRP049)	9.5

\* AVERAGE DIFFICULTY 13.0



## COMPARISON OF CAREER LADDER DOCUMENTS TO SURVEY DATA

### AFR 39-1 Specialty Descriptions

The AFR 39-1 Specialty Descriptions for the 54252/54232 AFSCs, dated 15 September 1977, were compared to the survey data. The specialty descriptions offered a comprehensive and accurate portrayal of the general duties and responsibilities of personnel working in these AFSCs. A few tasks were being performed (or equipment operated/maintained) by very low percentages of incumbents; however, there were isolated groups within the career ladder which performed the tasks or used the equipment to a much greater percentage than the overall group average. The AFR 39-1 Specialty Description for the 54299 AFSC covered the jobs performed by 9-skill level survey respondents supervising incumbents in this career field as well as DAFSC 542X0 and 542X1 incumbents.

### Specialty Training Standard (STS)

This section of the analysis focuses primarily on two areas of concern: 1) those tasks cross-referenced to the STS but not performed to any extent by 542X2 personnel, and 2) those tasks not directly cross-referenced to the STS but which are performed by substantial percentages of 3- and 5-skill level personnel

During April 1978, Sheppard Technical Training School personnel cross-referenced the 20 paragraphs of STS 542X2 to the current inventory tasks. All 20 paragraphs of the STS were cross-referenced to survey tasks which are performed by substantial percentages of 3-, 5-, or 7-skill level personnel. All primary jobs or functions identified in this analysis are contained in the current STS. Also, as shown in Table 15, there are twenty survey tasks cross-referenced to the STS which are performed by less than five percent of the 3-, 5-, or 7-level personnel. These findings indicate that the job functions specified in the current STS are indeed being performed in the field.

Table 16 contains 24 survey tasks which are not cross-referenced to the STS but which are performed by 20 percent or more of 3- or 5-skill level personnel. While some of these tasks may be related to more general paragraphs of the STS they are not related to specific functions contained in the current STS in the judgement of the Technical School personnel who performed the STS cross-referencing. If appropriate, the STS could be expanded or modified to account for the tasks shown in Table 16.

With the exception of the minor functions noted in the above paragraph, STS 542X2 appears to accurately represent all job functions identified in the Career Ladder Structure section of this report.

TABLE 15

TASKS REFERENCED TO THE STS BUT WHICH ARE PERFORMED BY LESS THAN FIVE PERCENT OF 3-, 5-, OR 7-SKILL LEVEL PERSONNEL

TASK	PERCENT PERFORMING			STS PARAGRAPH
	54232	54252	54272	
J2	3	2	2	17f
K37	4	5	4	13q
L12	4	7	5	17g
L13				
L14	4	6	10	9i
M13	5	7	12	98
M14	4	8	5	15d
M16	2	3	4	15i
M17	2	6	9	15n
M20	3	6	7	15c
Q1	4	5	7	15a
Q5	1	4	4	20f
Q9	2	4	4	20g
Q10	2	5	4	20d
Q16	2	5	5	20i
Q17	0	2	3	20f
Q18	2	3	4	20e
Q19	0	4	3	20g
Q20	0	3	3	20h
Q21	1	3	4	20j
	4	4	5	20b

TABLE 16

MAINTENANCE TASKS NOT REFERENCED TO THE STS BUT WHICH ARE PERFORMED BY 20 PERCENT OR MORE OF  
3- OR 5-SKILL LEVEL PERSONNEL

TASK	PERCENT PERFORMING	
	54232	54252
G21 OPERATE DISTRIBUTION SWITCHGEARS	21	30
G26 OPERATE PUMP PUMPS	19	23
G30 PERFORM EMERGENCY SHUTDOWN PROCEDURES	33	34
G37 RECEIVE OR TRANSFER FUEL TO STORAGE	36	39
H9 INSPECT POWER PLANT AIR DISTRIBUTION SYSTEMS	19	25
H10 LUBRICATE ACCESSORY SYSTEM PUMPS	21	23
K11 ISOLATE MALFUNCTIONS IN GASOLINE ENGINE FUEL SYSTEMS	25	35
K12 ISOLATE MALFUNCTIONS IN GASOLINE ENGINE IGNITION SYSTEMS	21	33
R10 ATTACH HOOK CABLES/PENDANTS ON ARRESTING SYSTEMS	27	25
R19 FILL OR BLEED HYDRAULIC SYSTEMS	32	28
R51 RECHARGE ACCUMULATORS	31	26
S20 ISOLATE MALFUNCTIONS ON COOLING SYSTEMS OF PORTABLE GENERATOR SETS	21	31
S35 REMOVE OR REPLACE BATTERIES ON PORTABLE GENERATOR SETS	50	50
S37 REMOVE OR REPLACE CABLES ON PORTABLE GENERATOR SETS	27	38
S60 REPAIR ALTERNATOR RECONNECTION PANELS ON PORTABLE GENERATOR SETS	12	22
S61 REPAIR COMPONENTS OF COOLING SYSTEMS OF PORTABLE GENERATOR SETS SUCH AS: PUMPS, RADIATORS, COOLERS	22	27
S73 REPLACE COMPONENTS OF BATTERY CHARGING CIRCUITS ON PORTABLE GENERATOR SETS	19	30
S79 TEST PORTABLE GENERATOR SETS USING PORTABLE LOAD BANKS	36	40
S80 TEST SPECIFIC GRAVITY OF LEAD ACID BATTERIES ON PORTABLE GENERATOR SETS	29	43
T3 ISOLATE MALFUNCTIONS IN BATTERY CHARGING CIRCUITS	20	24
V12 MAINTAIN MOTOR GENERATOR SETS FOR OPERATION	35	36
V17 MONITOR COMMERCIAL POWER	19	30
V20 OPERATE MOTOR GENERATOR SETS	29	32
V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT	42	64



## COMPARISON TO PREVIOUS SURVEY

The results of this survey have been compared to those of the previous survey (Electrical Power Production Career Ladder, AFS 543X0) published on 15 August 1973.

The analysis of the 1978 data revealed essentially the same career structure as that of the previous study. In both surveys major clusters were identified for First Line Supervisors, Supervisors, Aircraft Arresting Systems Specialist, Portable Generator Maintenance/Barrier Maintenance, and Power Plant Operators. In the 1978 study, a group of uninterruptable power systems specialists were also identified which were not in the 1973 sample.

The 1973 study identified many small groups which were not specifically mentioned in the current study. These groups include: (1) Power Plant, Accessory Systems, Generator Power Production and Cooling System and Governors Specialists; (2) Alternator and Exciter, Switchgear, and Gasoline or Diesel Engine Maintenance Specialists; (3) Power Plant and General Power Production Tasks Specialists; (4) Power Plant, Accessory Systems, and General Power Production Tasks Specialists; (5) Power Plant, General Power Production Tasks and Accessory Systems Maintenance Specialist; (6) Power Plant and Lubrications Systems Specialists; (7) Power Plant, Engines Maintenance and Accessory Systems Specialists; (8) Engine Rebuild, and Power Plant Fuel Systems Specialists; (9) Supply Custodians. These jobs are not identified in the 1978 study due to the more general reporting of job types. However, all of these jobs are currently being performed and exist within the clusters identified in this study.



## DISCUSSION

The analysis of the survey data revealed three major fields or types of functional jobs (excluding managerial, supervisory, and administrative jobs). These types of jobs are (1) operating and maintaining prime and stand-by power plants, (2) portable generator sets, and (3) aircraft arresting systems. Operating and maintaining the power production equipment (prime and standby power plants and portable generator sets) appears to have related tasks and requires very similar mechanical knowledge and basic electronic principles. The aircraft arresting systems operations share very few related tasks with other types of work in the specialty and appears to be an all together different job.

At any one time nine percent of the career field will be spending a majority of their time working with aircraft arresting systems. Forty-seven percent will be incumbents in their first enlistment and probably on their first job. Training needed to perform the tasks required of these incumbents has little similarity to that needed for performing tasks done by the remainder of the career field.

Another group identified as having a very distinct job is composed of uninterruptable power systems (UPS) specialists. Extensive additional training is required for the UPS specialist to be able to perform his job. This group represents one percent of the career field.

These two very specialized groups do not appear to "fit" with the remainder of the jobs in the career field: those working with arresting barriers are not using their technical training and the UPS specialists need technical background or experience beyond that needed in most groups. Thus, these two groups (involving ten percent of the career field) represent potential problem areas which need to be considered by functional, classification, and assignments managers. Several alternative solutions are possible including shredouts, SEIs, or reallocation of tasks (for example, transferring responsibility for barrier operations to some other AFSCs).

## APPENDIX A

CLUSTER I: ELECTRICAL POWER PRODUCTION SUPERVISORS (GRP097)

NUMBER IN GROUP: 225 PERCENT OF SAMPLE: 13%

MAJCOM DISTRIBUTION: AFCS (35%), ADCOM (30%), SAC (11%), AFSC (5%),  
AAC (3%), OTHER (16%)

LOCATION: CONUS (56%), OVERSEAS (44%)

DAFSC DISTRIBUTION: 54232 (2%), 54252 (58%), 54272 (35%), 54299(2%),  
OTHER (3%)

AVERAGE GRADE: 5.0 JOB DIFFICULTY INDEX: 17.4

AVERAGE TIME IN CAREER FIELD: 104 MONTHS

AVERAGE TIME IN SERVICE: 114 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 23%

AMOUNT OF SUPERVISION: 65% SUPERVISE AN AVERAGE OF 4 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (10%), SO-SO (18%), INTERESTING (70%),  
NOT REPORTED (2%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 24%  
FAIRLY WELL OR BETTER 74%  
NOT REPORTED 2%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 27%  
FAIRLY WELL OR BETTER 71%  
NOT REPORTED 2%

AVERAGE NUMBER OF TASKS PERFORMED: 197

GROUP DIFFERENTIATING TASKS:

TASKS

G3 PERFORM PREOPERATIONAL INSPECTIONS OF POWER PLANTS  
B4 DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS  
B19 DIRECT MAINTENANCE OF DIESEL ENGINES  
V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT  
B56 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION SPECIALISTS (AFSC 54350)

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

G	OPERATING POWER PLANTS	16
B	DIRECTING AND IMPLEMENTING	15
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	9
A	ORGANIZING AND PLANNING	8
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	8

CLUSTER IA: POWER PRODUCTION MAINTENANCE SUPERVISORS (GRP569)

NUMBER IN GROUP: 113 PERCENT OF SAMPLE: 6%

MAJOR COMMAND DISTRIBUTION: ADCOM (35%), AFCS (34%), SAC (14%), HQ USAF (6%), PACAF (4%), OTHER (7%)

LOCATION: CONUS (55%), OVERSEAS (45%)

DAFSC DISTRIBUTION: 54232 (2%), 54252 (63%), 54272 (35%)

AVERAGE GRADE: 4.9 JOB DIFFICULTY INDEX: 17.1

AVERAGE TIME IN CAREER FIELD: 101 MONTHS

AVERAGE TIME IN SERVICE: 108 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 32%

AMOUNT OF SUPERVISION: 65% SUPERVISE AN AVERAGE OF 4 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (11%), SO-SO (20%), INTERESTING (69%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 28%  
FAIRLY WELL OR BETTER 72%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 27%  
FAIRLY WELL OR BETTER 73%

AVERAGE NUMBER OF TASKS PERFORMED: 179

GROUP DIFFERENTIATING TASKS:

TASKS

G34 PERFORM PREOPERATIONAL INSPECTIONS OF ENGINES  
P10 REMOVE OR REPLACE LUBE OIL PUMPS  
B19 DIRECT MAINTENANCE OF DIESEL ENGINES  
G31 PERFORM PARALLEL OPERATION OF POWER PRODUCTION UNITS  
B26 DIRECT MAINTENANCE OF RECORDS, FORMS, OR REPORTS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

G	OPERATING POWER PLANTS	17
B	DIRECTING AND IMPLEMENTING	15
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	9
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	7
A	ORGANIZING AND PLANNING	7



1B. NCOICs, POWER PRODUCTION BRANCH (GRP 376)

NUMBER IN GROUP: 29 PERCENT OF SAMPLE: 2%

MAJCOM DISTRIBUTION: AFSC (38%), ADCOM (24%), HQ USAF (14%), SAC (10%)  
AAC (3%), OTHER (8%)

LOCATION: CONUS (59%), OVERSEAS (41%)

DAFSC DISTRIBUTION: 54252 (24%), 54272 (62%), 54299 (10%)

AVERAGE GRADE: 6.0 JOB DIFFICULTY INDEX: 19.5

AVERAGE TIME IN CAREER FIELD: 154 MONTHS

AVERAGE TIME IN SERVICE: 182 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: NONE

AMOUNT OF SUPERVISION: 93% SUPERVISED AN AVERAGE OF 6 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (10%), SO-SO (14%), INTERESTING (72%),  
NOT REPORTED (4%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 21%  
FAIRLY WELL OR BETTER 79%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 28%  
FAIRLY WELL OR BETTER 72%

AVERAGE NUMBER OF TASKS PERFORMED: 199

GROUP DIFFERENTIATING TASKS:

TASKS

A26 PLAN OR SCHEDULE WORK ASSIGNMENTS  
A2 ASSIGN PERSONNEL TO DUTIES  
B56 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION SPECIALISTS  
(AFSC 54252)  
B31 DIRECT OJT  
B20 DIRECT MAINTENANCE OF FUEL SYSTEMS

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE TIME SPENT BY ALL MEMBERS</u>
B DIRECTING AND IMPLEMENTING	22
A ORGANIZING AND PLANNING	13
G OPERATING POWER PLANTS	10
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	10
C EVALUATING	9

CLUSTER IC: NCOICs, POWER PRODUCTION SECTION (GRP221)

NUMBER IN GROUP: 30 PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: AFCS (67%), ADCOM (23%), AAC (7%), USAFE (3%)

LOCATION: CONUS (50%), OVERSEAS (50%)

DAFSC DISTRIBUTION: 54252 (50%), 54272 (50%)

AVERAGE GRADE: 5.0 JOB DIFFICULTY INDEX: 12.9

AVERAGE TIME IN CAREER FIELD: 105 MONTHS

AVERAGE TIME IN SERVICE: 116 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 20%

AMOUNT OF SUPERVISION: 63% SUPERVISE AN AVERAGE OF 5 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (7%), SO-SO (17%), INTERESTING (73%),  
NOT REPORTED (3%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 7%  
FAIRLY WELL OR BETTER 93%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 17%  
FAIRLY WELL OR BETTER 83%

AVERAGE NUMBER OF TASKS PERFORMED: 108

GROUP DIFFERENTIATING TASKS:

TASKS

G2 ADJUST ENGINE CONTROLS AFTER STARTING

E21 MAKE ENTRIES ON HISTORICAL RECORD DIESEL ELECTRIC GENERATOR AND SYSTEM FORMS  
(AF FORM 719)

G36 PLACE POWER PRODUCTION UNITS ON LINE AFTER COMPLETE POWER FAILURE

B19 DIRECT MAINTENANCE OF DIESEL ENGINES

B4 DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE TIME SPENT BY ALL MEMBERS</u>
B DIRECTING AND IMPLEMENTING	18
G OPERATING POWER PLANTS	18
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	11
A ORGANIZING AND PLANNING	11
V PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASK	10

CLUSTER II: PRIME POWER PLANT OPERATOR/MECHANICS (GRP108)

NUMBER IN GROUP: 389

PERCENT OF SAMPLE: 22%

MAJOR COMMAND DISTRIBUTION: AFCS (38%), ADCOM (35%), SAC (10%), AAC (5%), OTHER (12%)

LOCATION: CONUS (63%), OVERSEAS (37%)

DAFSC DISTRIBUTION: 54232 (9%), 54252 (83%), 54272 (6%)

AVERAGE GRADE: 3.7

JOB DIFFICULTY INDEX: 8.9

AVERAGE TIME IN CAREER FIELD: 47 MONTHS

AVERAGE TIME IN SERVICE: 54 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 65%

AMOUNT OF SUPERVISION: 17% SUPERVISE AN AVERAGE OF TWO SUBORDINATES

EXPRESSED JOB INTEREST: DULL (23%), SO-SO (25%), INTERESTING (48%),  
NOT REPORTED (4%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 40%  
FAIRLY WELL OR BETTER 60%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 37%  
FAIRLY WELL OR BETTER 63%

AVERAGE NUMBER OF TASKS PERFORMED: 75

GROUP DIFFERENTIATING TASKS:

TASKS

- G34 PERFORM PREOPERATIONAL INSPECTIONS OF ENGINES
- G15 MONITOR SWITCHGEAR INSTRUMENTS FOR PROPER INDICATIONS
- E19 MAKE ENTRIES ON DAILY POWER PLANT OPERATING LOG (DIESEL-ELECTRICAL) FORMS  
(AF FORM 1167)
- G35 PERFORM STAND-BY ENGINE RUN-UP
- G31 PERFORM PARALLEL OPERATION OF POWER PRODUCTION UNITS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

G	OPERATING POWER PLANTS	36
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	16
B	DIRECTING AND IMPLEMENTING	7
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	6
H	MAINTAINING ACCESSORY SYSTEMS	6

CLUSTER IIA. PRIME POWER PLANT MECHANICS (GRP480)

NUMBER IN GROUP: 98

PERCENT OF SAMPLE: 5%

MAJOR COMMAND DISTRIBUTION: ADCOM (38%), AFCS (34%), SAC (14%), PACAF (4%), OTHER (10%)

LOCATION: CONUS (59%), OVERSEAS (41%)

DAFSC DISTRIBUTION: 54232 (9%), 54252 (84%), 54272 (4%), NOT REPORTED (3%)

AVERAGE GRADE: 3.6

JOB DIFFICULTY INDEX: 11.6

AVERAGE TIME IN CAREER FIELD: 43 MONTHS

AVERAGE TIME IN SERVICE: 51 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 69%

AMOUNT OF SUPERVISION: 14% SUPERVISE AN AVERAGE OF ONE SUBORDINATE

EXPRESSED JOB INTEREST: DULL (13%), SO-SO (21%), INTERESTING (58%),  
NOT REPORTED (8%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 31%  
FAIRLY WELL OR BETTER 69%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 26%  
FAIRLY WELL OR BETTER 74%

AVERAGE NUMBER OF TASKS PERFORMED: 106

GROUP DIFFERENTIATING TASKS:

TASKS

P10 REMOVE, REPLACE OR CLEAN FUEL FILTERS OR STRAINERS  
G6 CORRECT CROSS CURRENT CONDITIONS  
M7 INSPECT OR CLEAN BRUSHES, SLIP RINGS, OR BRUSH HOLDERS  
G4 ANALYZE METER READINGS TO DETERMINE THE NUMBER OF UNITS NEEDED ON THE LINE  
H17 SERVICE OR CHARGE LEAD ACID TYPE BATTERIES

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

G	OPERATING POWER PLANTS	28
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	14
H	MAINTAINING ACCESSORY SYSTEMS	7
L	MAINTAINING COOLING SYSTEMS AND GOVERNORS	7
P	MAINTAINING POWER PLANT FUEL SYSTEMS	7



# IIB. AFCS PRIME POWER PLANT OPERATOR/MECHANICS (GRP453)

NUMBER IN GROUP: 16

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: AFCS (75%), ADCOM (19%), NOT REPORTED (6%)

LOCATION: CONUS (44%), OVERSEAS (56%)

DAFSC DISTRIBUTION: 54252 (94%), 54272 (6%)

AVERAGE GRADE: 4.1

JOB DIFFICULTY INDEX: 11.8

AVERAGE TIME IN CAREER FIELD: 82 MONTHS

AVERAGE TIME IN SERVICE: 90 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 31%

AMOUNT OF SUPERVISION: 4% SUPERVISE AN AVERAGE OF ONE SUBORDINATE

EXPRESSED JOB INTEREST: DULL (25%), SO-SO (19%), INTERESTING (56%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 31%  
FAIRLY WELL OR BETTER 69%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 31%  
FAIRLY WELL OR BETTER 69%

AVERAGE NUMBER OF TASKS PERFORMED: 95

GROUP DIFFERENTIATING TASKS:

## TASKS

E19 MAKE ENTRIES ON DAILY POWER PLANT OPERATING LOG (DIESEL-ELECTRICAL) FORMS  
(AF FORM 1167)

G16 OPERATE AIR COMPRESSOR SYSTEMS

B19 DIRECT MAINTENANCE OF DIESEL ENGINES

L1 ADD ANTIFREEZE OR RUST INHIBITOR TO COOLING SYSTEMS

G31 PERFORM PARALLEL OPERATION OF POWER PRODUCTION UNITS

TIME SPENT ON DUTIES:

## DUTY

## AVERAGE TIME SPENT BY ALL MEMBERS

G	OPERATING POWER PLANTS	24
B	DIRECTING AND IMPLEMENTING	19
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	9
H	MAINTAINING ACCESSORY SYSTEMS	8
L	MAINTAINING COOLING SYSTEMS AND GOVERNORS	8

### IIC. PRIME POWER PLANT FIRST LINE SUPERVISORS (GRP268)

NUMBER IN GROUP: 27

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: ADCOM (59%), AAC (15%), AFCS (15%), MAC (7%), SAC (4%)

LOCATION: CONUS (78%), OVERSEAS (22%)

DAFSC DISTRIBUTION: 54252 (59%), 54272 (37%), NOT REPORTED (4%)

AVERAGE GRADE: 4.8

JOB DIFFICULTY INDEX: 10.7

AVERAGE TIME IN CAREER FIELD: 93 MONTHS

AVERAGE TIME IN SERVICE: 103 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 22%

AMOUNT OF SUPERVISION: 56% SUPERVISE AN AVERAGE OF THREE SUBORDINATES

EXPRESSED JOB INTEREST: DULL (11%), SO-SO (22%), INTERESTING (63%),  
NOT REPORTED (4%)

PERCEIVED UTILIZATION OF TALENTS:	LITTLE OR NOT AT ALL	30%
	FAIRLY WELL OR BETTER	70%

PERCEIVED UTILIZATION OF TRAINING:	LITTLE OR NOT AT ALL	26%
	FAIRLY WELL OR BETTER	74%

AVERAGE NUMBER OF TASKS PERFORMED: 84

GROUP DIFFERENTIATING TASKS:

## TASKS

E11 MAINTAIN POWER PLANT OPERATING LOG BOOKS  
G31 PERFORM PARALLEL OPERATION OF POWER PRODUCTION UNITS  
G21 OPERATE DISTRIBUTION SWITCHGEARS  
A5 COORDINATE POWER TRANSFER WITH USING AGENCIES  
B56 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION SPECIALISTS  
(AFSC 54252)

TIME SPENT ON DUTIES:

## DUTY

### AVERAGE TIME SPENT BY ALL MEMBERS

G	OPERATING POWER PLANTS	35
B	DIRECTING AND IMPLEMENTING	16
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	12
A	ORGANIZING AND PLANNING	9
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	5

# IID. PRIME POWER PLANT OPERATORS (GRP287)

NUMBER IN GROUP: 119

PERCENT OF SAMPLE: 7%

MAJOR COMMAND DISTRIBUTION: ADCOM (49%), AFCS (20%), AAC (12%), USAFA (10%),  
HQ USAF (3%), USAFE (3%), OTHER (3%)

LOCATION: CONUS (64%), OVERSEAS (36%)

DAFSC DISTRIBUTION: 54232 (15%), 54252 (80%), 54272 (5%)

AVERAGE GRADE: 3.6

JOB DIFFICULTY INDEX: 6

AVERAGE TIME IN CAREER FIELD: 40 MONTHS

AVERAGE TIME IN SERVICE: 46 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 72%

AMOUNT OF SUPERVISION: 11% SUPERVISE AN AVERAGE OF TWO SUBORDINATES

EXPRESSED JOB INTEREST: DULL (25%), SO-SO (26%), INTERESTING (45%),  
NOT REPORTED (4%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 39%  
FAIRLY WELL OR BETTER 61%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 37%  
FAIRLY WELL OR BETTER 63%

AVERAGE NUMBER OF TASKS PERFORMED: 46

GROUP DIFFERENTIATING TASKS:

## TASKS

- G34 PERFORM PREOPERATIONAL INSPECTIONS OF ENGINES
- E19 MAKE ENTRIES ON DAILY POWER PLANT OPERATING LOG (DIESEL-ELECTRICAL) FORMS  
(AF FORM 1167)
- G17 OPERATE AIR STARTING SYSTEMS
- G2 ADJUST ENGINE CONTROLS AFTER STARTING
- G31 PERFORM PARALLEL OPERATION OF POWER PRODUCTION UNITS

TIME SPENT ON DUTIES:

## DUTY

## AVERAGE TIME SPENT BY ALL MEMBERS

G	OPERATING POWER PLANTS	51
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	14
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	7
B	DIRECTING AND IMPLEMENTING	5
H	MAINTAINING ACCESSORY SYSTEMS	4

III. STAND-BY POWER PLANT OPERATOR/MECHANICS (GRP263)

NUMBER IN GROUP: 51

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: AFCS (71%), ADCOM (12%), HQ USAF (6%), SAC (6%),  
OTHER (5%)

LOCATION: CONUS (73%), OVERSEAS (27%)

DAFSC DISTRIBUTION: 54232 (2%), 54242 (94%), 54272 (4%)

AVERAGE GRADE: 3.8

JOB DIFFICULTY INDEX: 8.0

AVERAGE TIME IN CAREER FIELD: 47 MONTHS

AVERAGE TIME IN SERVICE: 55 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 69%

AMOUNT OF SUPERVISION: 22% SUPERVISE AN AVERAGE OF 2 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (28%), SO-SO (39%), INTERESTING (31%),  
NOT REPORTED (2%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 55%  
FAIRLY WELL OR BETTER 45%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 51%  
FAIRLY WELL OR BETTER 49%

AVERAGE NUMBER OF TASKS PERFORMED: 67

GROUP DIFFERENTIATING TASKS:

TASKS

G15 MONITOR SWITCHGEAR INSTRUMENTS FOR PROPER INDICATIONS  
G35 PERFORM STAND-BY ENGINE RUN-UP  
V17 MONITOR COMMERCIAL POWER  
G36 PLACE POWER PRODUCTION UNITS ON LINE AFTER COMPLETE POWER FAILURE  
E11 MAINTAIN POWER PLANT OPERATING LOG BOOKS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

G	OPERATING POWER PLANTS	31
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	23
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	7
B	DIRECTING AND IMPLEMENTING	7
H	MAINTAINING ACCESSORY SYSTEMS	6



IIF. STAND-BY POWER PLANT OPERATOR/MECHANIC HELPERS (GRP161)

NUMBER IN GROUP: 16

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: AFCS (56%), ADCOM (13%), AFLC (13%), HQ USAF (12%), SAC (6%)

LOCATION: CONUS (75%), OVERSEAS (25%)

DAFSC DISTRIBUTION: 54232 (6%), 54252 (94%)

AVERAGE GRADE: 3.7

JOB DIFFICULTY INDEX: 5.9

AVERAGE TIME IN CAREER FIELD: 45 MONTHS

AVERAGE TIME IN SERVICE: 52 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 69%

AMOUNT OF SUPERVISION: 6% SUPERVISE AN AVERAGE OF 2 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (75%), SO-SO (19%), INTERESTING (6%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 88%  
FAIRLY WELL OR BETTER 12%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 94%  
FAIRLY WELL OR BETTER 6%

AVERAGE NUMBER OF TASKS PERFORMED: 55

GROUP DIFFERENTIATING TASKS:

TASKS

- G34 PERFORM PREOPERATIONAL INSPECTIONS OF ENGINES
- G38 START OR SHUTDOWN ENGINES
- G36 PLACE POWER PRODUCTION UNITS ON LINE AFTER COMPLETE POWER FAILURE
- V38 REPAIR LAWN MOWERS
- G35 PERFORM STAND-BY ENGINE RUN-UP

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	35
G	OPERATING POWER PLANTS	22
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	9
A	ORGANIZING AND PLANNING	5
H	MAINTAINING ACCESSORY SYSTEMS	5

CLUSTER III: PORTABLE GENERATOR SET AND POWER PLANT OPERATOR/MECHANICS (GRP080)

NUMBER IN GROUP: 105

PERCENT OF SAMPLE: 6%

MAJOR COMMAND DISTRIBUTION: SAC (33%), MAC (12%), AFCS (11%), PACAF (10%),  
ATC (7%), USAF (7%), OTHER (10%)

LOCATION: CONUS (67%), OVERSEAS (33%)

DAFSC DISTRIBUTION: 54232 (10%), 54252 (80%), 54272 (10%)

AVERAGE GRADE: 3.6

JOB DIFFICULTY INDEX: 11.9

AVERAGE TIME IN CAREER FIELD: 40 MONTHS

AVERAGE TIME IN SERVICE: 48 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 72%

AMOUNT OF SUPERVISION: 11% SUPERVISE AN AVERAGE OF 3 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (12%), SO-SO (23%), INTERESTING (62%),  
NOT REPORTED (3%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 31%  
FAIRLY WELL OR BETTER 69%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 29%  
FAIRLY WELL OR BETTER 71%

AVERAGE NUMBER OF TASKS PERFORMED: 109

GROUP DIFFERENTIATING TASKS:

TASKS

S35 REMOVE OR REPLACE BATTERIES ON PORTABLE GENERATOR SETS  
S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS  
G35 PERFORM STAND-BY ENGINE RUN-UP  
S33 REMOVE, CLEAN, OR REPLACE LUBE OIL FILTERS OR STRAINERS ON PORTABLE  
GENERATOR SYSTEMS  
V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE TIME SPENT BY ALL MEMBERS</u>
G OPERATING POWER PLANTS	20
S OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	19
V PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	14
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	6
B DIRECTING AND IMPLEMENTING	6

IIIA. PORTABLE GENERATOR SET MECHANICS (GRP202)

NUMBER IN GROUP: 67

PERCENT OF SAMPLE: 4%

MAJOR COMMAND DISTRIBUTION: SAC (33%), AFSC (13%), MAC (13%), AFCS (8%), ATC (8%),  
PACAF (8%), ADCOM (5%), AFLC (5%), TAC (5%)

LOCATION: CONUS (72%), OVERSEAS (28%)

DAFSC DISTRIBUTION: 54232 (8%), 54252 (84%), 54272 (8%)

AVERAGE GRADE: 3.6

JOB DIFFICULTY INDEX: 13.6

AVERAGE TIME IN CAREER FIELD: 43 MONTHS

AVERAGE TIME IN SERVICE: 50 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 52%

AMOUNT OF SUPERVISION: 13% SUPERVISE AN AVERAGE OF 4 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (12%), SO-SO (16%), INTERESTING (69%),  
NOT REPORTED (3%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 27%  
FAIRLY WELL OR BETTER 73%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 25%  
FAIRLY WELL OR BETTER 75%

AVERAGE NUMBER OF TASKS PERFORMED: 128

GROUP DIFFERENTIATING TASKS:

TASKS

S35 REMOVE OR REPLACE BATTERIES ON PORTABLE GENERATOR SETS  
L1 ADD ANTIFREEZE OR RUST INHIBITOR TO COOLING SYSTEMS  
V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT  
A5 COORDINATE POWER TRANSFER WITH USING AGENCIES

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

S	OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	21
G	OPERATING POWER PLANTS	16
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	13
B	DIRECTING AND IMPLEMENTING	6
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	5

IIIB. PORTABLE GENERATOR SET, PRIME POWER PLANT OPERATOR/MECHANIC HELPERS (GRP254)

NUMBER IN GROUP: 24

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: SAC (46%), AFCS (17%), PACAF (17%), ATC (8%), MAC (8%),  
OTHER (4%)

LOCATION: CONUS (58%), OVERSEAS (42%)

DAFSC DISTRIBUTION: 54232 (21%), 54252 (79%)

AVERAGE GRADE: 3.3

JOB DIFFICULTY INDEX: 8.0

AVERAGE TIME IN CAREER FIELD: 27 MONTHS

AVERAGE TIME IN SERVICE: 30 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 88%

AMOUNT OF SUPERVISION: NONE

EXPRESSED JOB INTEREST: DULL (8%), SO-SO (29%), INTERESTING (58%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 33%  
FAIRLY WELL OR BETTER 67%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 17%  
FAIRLY WELL OR BETTER 83%

AVERAGE NUMBER OF TASKS PERFORMED: 69

GROUP DIFFERENTIATING TASKS:

TASKS

S35 REMOVE OR REPLACE BATTERIES ON PORTABLE GENERATOR SETS  
S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS  
G29 PARALLEL POWER PRODUCTION UNITS WITH COMMERCIAL POWER  
S33 REMOVE, CLEAN, OR REPLACE LUBE OIL FILTERS OR STRAINERS ON PORTABLE GENERATOR  
SETS  
G36 PLACE POWER PRODUCTION UNITS ON LINE AFTER COMPLETE POWER FAILURE

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

G	OPERATING POWER PLANTS	34
S	OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	18
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	16
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	6
H	MAINTAINING ACCESSORY SYSTEMS	5



# IIIC. PORTABLE GENERATOR SET OPERATOR/CLERKS (GRP155)

NUMBER IN GROUP: 9 PERCENT OF SAMPLE: 0.5%

MAJOR COMMAND DISTRIBUTION: USAFE (44%), MAC (22%), AFCS (11%), SAC (11%), TAC (11%)

LOCATION: CONUS (56%), OVERSEAS (44%)

DAFSC DISTRIBUTION: 54232 (11%), 54252 (56%), 54272 (22%), NOT REPORTED (11%)

AVERAGE GRADE: 4.0 JOB DIFFICULTY INDEX: 9.8

AVERAGE TIME IN CAREER FIELD: 57 MONTHS

AVERAGE TIME IN SERVICE: 61 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 55%

AMOUNT OF SUPERVISION: 9% SUPERVISE AN AVERAGE OF 1 SUBORDINATE

EXPRESSED JOB INTEREST: DULL (11%), SO-SO (56%), INTERESTING (33%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 44%  
FAIRLY WELL OR BETTER 56%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 67%  
FAIRLY WELL OR BETTER 33%

AVERAGE NUMBER OF TASKS PERFORMED: 72

## GROUP DIFFERENTIATING TASKS:

### TASKS

S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS

S29 PERFORM PREOPERATIONAL INSPECTIONS OF PORTABLE GENERATOR SETS

V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT

E1 COMPILE REPORTS OR RECORDS FROM DATA ON MAINTENANCE FORMS

E4 ESTABLISH OR MAINTAIN LIBRARY OF CURRENT TECHNICAL ORDERS, MANUALS, REGULATIONS OR OTHER PUBLICATIONS

## TIME SPENT ON DUTIES:

### DUTY

### AVERAGE TIME SPENT BY ALL MEMBERS

S	OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	20
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	11
B	DIRECTING AND IMPLEMENTING	8
A	ORGANIZING AND PLANNING	6

CLUSTER IV: PORTABLE GENERATOR SET OPERATOR/MECHANICS (GRP038)

NUMBER IN GROUP: 607

PERCENT OF SAMPLE: 34%

MAJOR COMMAND DISTRIBUTION: TAC (28%), SAC (17%), AFCS (14%), MAC (9%),  
USAFE (8%), PACAF (6%), OTHER (18%)

LOCATION: CONUS (77%), OVERSEAS (23%)

DAFSC DISTRIBUTION: 54232 (7%), 54252 (69%), 54272 (20%), NO RESPONSE (4%)

AVERAGE GRADE: 4.2

JOB DIFFICULTY INDEX: 15.4

AVERAGE TIME IN CAREER FIELD: 73 MONTHS

AVERAGE TIME IN SERVICE: 81 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 50%

AMOUNT OF SUPERVISION: 35% SUPERVISE AN AVERAGE OF 4 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (10%), SO-SO (18%), INTERESTING (69%),  
NOT REPORTED (3%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 19%  
FAIRLY WELL OR BETTER 81%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 20%  
FAIRLY WELL OR BETTER 80%

AVERAGE NUMBER OF TASKS PERFORMED: 144

GROUP DIFFERENTIATING TASKS:

TASKS

S35 REMOVE OR REPLACE BATTERIES ON PORTABLE GENERATOR SETS  
S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS  
S79 TEST PORTABLE GENERATOR SETS USING PORTABLE LOAD BANKS  
V27 PERFORM CORROSION CONTROL ON ELECTRICAL POWER PRODUCTION EQUIPMENT  
S16 ISOLATE MALFUNCTIONS IN STARTER SYSTEMS ON PORTABLE GENERATOR SETS

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE TIME SPENT BY ALL MEMBERS</u>
S OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	29
V PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	14
R OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	11
B DIRECTING AND IMPLEMENTING	8
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	5

# IVA. PORTABLE GENERATOR SET SHOP SUPERVISORS (GRP157)

NUMBER IN GROUP: 216

PERCENT OF SAMPLE: 12

MAJOR COMMAND DISTRIBUTION: AFCS (20%), SAC (19%), TAC (15%), MAC (11%), USAFE (9%), PACAF (8%), ATC (6%), AFSC (5%), OTHER (7%)

LOCATION: CONUS (70%), OVERSEAS (30%)

DAFSC DISTRIBUTION: 54232 (3%), 54252 (51%), 54272 (43%)

AVERAGE GRADE: 5.0

JOB DIFFICULTY INDEX: 19.2

AVERAGE TIME IN CAREER FIELD: 117 MONTHS

AVERAGE TIME IN SERVICE: 130 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 25%

AMOUNT OF SUPERVISION: 63% SUPERVISE AN AVERAGE OF 5 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (6%), SO-SO (12%), INTERESTING (78%), NOT REPORTED (4%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 10%  
FAIRLY WELL OR BETTER 90%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 14%  
FAIRLY WELL OR BETTER 86%

AVERAGE NUMBER OF TASKS PERFORMED: 200

GROUP DIFFERENTIATING TASKS:

## TASKS

- S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS
- S15 ISOLATE MALFUNCTIONS IN SAFETY CIRCUITS ON PORTABLE GENERATOR SETS
- S8 INTERPRET WIRING DIAGRAMS OF PORTABLE GENERATOR SETS
- B19 DIRECT MAINTENANCE OF DIESEL ENGINES
- A7 DETERMINE MAINTENANCE REQUIREMENTS FOR EQUIPMENT OR FACILITIES

TIME SPENT ON DUTIES:

## DUTY

## AVERAGE TIME SPENT BY ALL MEMBERS

S	OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	25
B	DIRECTING AND IMPLEMENTING	13
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	10
A	ORGANIZING AND PLANNING	8
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	7

IVB. PORTABLE GENERATOR SET MECHANICS AND AIRCRAFT ARRESTING  
SYSTEM SPECIALISTS (GRP149)

NUMBER IN GROUP: 196

PERCENT OF SAMPLE: 11

MAJOR COMMAND DISTRIBUTION: TAC (47%), SAC (19%), USAFE (10%), ADCOM (5%),  
AFLC (5%), OTHER (14%)

LOCATION: CONUS (84%), OVERSEAS (16%)

DAFSC DISTRIBUTION: 54232 (13%), 54252 (79%), 54272 (6%)

AVERAGE GRADE: 3.8

JOB DIFFICULTY INDEX: 16.0

AVERAGE TIME IN CAREER FIELD: 49 MONTHS

AVERAGE TIME IN SERVICE: 55 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 61%

AMOUNT OF SUPERVISION: 24% SUPERVISE AN AVERAGE OF 2 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (6%), SO-SO (19%), INTERESTING (72%),  
NOT REPORTED (3%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 19%  
FAIRLY WELL OR BETTER 81%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 17%  
FAIRLY WELL OR BETTER 76%  
NOT REPORTED 7%

AVERAGE NUMBER OF TASKS PERFORMED: 154

GROUP DIFFERENTIATING TASKS:

TASKS

S35 REMOVE OR REPLACE BATTERIES ON PORTABLE GENERATOR SETS  
R19 FILL OR BLEED HYDRAULIC SYSTEMS  
S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS  
S28 PERFORM POSTOPERATIONAL INSPECTIONS OF PORTABLE GENERATOR SETS  
R68 REMOVE OR REPLACE HOOK CABLE SUPPORT DISCS  
R46 PERFORM REQUIRED INSPECTIONS ON AIRCRAFT ARRESTING SYSTEMS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

R	OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	30
S	OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	21
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	12
B	DIRECTING AND IMPLEMENTING	6
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	4



IVC. PORTABLE GENERATOR SET MECHANICS/TROUBLESHOOTERS (GRP092)

NUMBER IN GROUP: 134

PERCENT OF SAMPLE: 8%

MAJOR COMMAND DISTRIBUTION: AFCS (27%), TAC (18%), MAC (11%), ATC (10%), SAC (8%), PACAF (6%), USAFE (5%), OTHER (15%)

LOCATION: CONUS (75%), OVERSEAS (35%)

DAFSC DISTRIBUTION: 54232 (5%), 54252 (80%), 54272 (12%)

AVERAGE GRADE: 3.9

JOB DIFFICULTY INDEX: 12.4

AVERAGE TIME IN CAREER FIELD: 51 MONTHS

AVERAGE TIME IN SERVICE: 56 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 40%

AMOUNT OF SUPERVISION: 16% SUPERVISE AN AVERAGE OF 3 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (25%), SO-SO (22%), INTERESTING (45%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 25%  
FAIRLY WELL OR BETTER 75%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 28%  
FAIRLY WELL OR BETTER 72%

AVERAGE NUMBER OF TASKS PERFORMED: 85

GROUP DIFFERENTIATING TASKS:

TASKS

- S79 TEST PORTABLE GENERATOR SETS USING PORTABLE LOAD BANKS
- S27 PERFORM PERIODIC/PREVENTATIVE MAINTENANCE ON COOLING SYSTEMS OF PORTABLE GENERATOR SETS
- S15 ISOLATE MALFUNCTIONS IN SAFETY CIRCUITS ON PORTABLE GENERATOR SETS
- S16 ISOLATE MALFUNCTIONS IN STARTER SYSTEMS ON PORTABLE GENERATOR SETS
- S14 ISOLATE MALFUNCTIONS IN MB-TEEN BATTERY CHARGING SYSTEMS

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE TIME SPENT BY ALL MEMBERS</u>
S OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	46
V PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	17
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	4
B DIRECTING AND IMPLEMENTING	4
T OPERATE AND MAINTAIN AUTOMATIC TRANSFER PANELS	4

IVD. PORTABLE GENERATOR SET OPERATORS (GRP044)

NUMBER IN GROUP: 60 PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: TAC (32%), SAC (25%), MAC (13%), AFCS (7%), ATC (7%),  
USAFE (7%), PACAF (5%), AAC (4%)

LOCATION: CONUS (80%), OVERSEAS (20%)

DAFSC DISTRIBUTION: 54232 (15%), 54252 (77%), 54272 (5%)

AVERAGE GRADE: 3.9 JOB DIFFICULTY INDEX: 12.4

AVERAGE TIME IN CAREER FIELD: 44 MONTHS

AVERAGE TIME IN SERVICE: 48 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 74%

AMOUNT OF SUPERVISION: 10% SUPERVISE AN AVERAGE OF 3 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (25%), SO-SO (22%), INTERESTING (45%),  
NOT REPORTED (8%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 38%  
FAIRLY WELL OR BETTER 62%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 33%  
FAIRLY WELL OR BETTER 67%

AVERAGE NUMBER OF TASKS PERFORMED: 48

GROUP DIFFERENTIATING TASKS:

TASKS

S35 REMOVE OR REPLACE BATTERIES ON PORTABLE GENERATOR SETS  
S30 PERFORM SINGLE UNIT OPERATION OF PORTABLE GENERATOR SETS  
S33 REMOVE, CLEAN, OR REPLACE LUBE OIL FILTERS OR STRAINERS ON PORTABLE GENERATOR  
SETS  
L1 ADD ANTIFREEZE OR RUST INHIBITOR TO COOLING SYSTEMS  
S80 TEST SPECIFIC GRAVITY OF LEAD ACID BATTERIES ON PORTABLE GENERATOR SETS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

S	OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	32
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	24
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	6
B	DIRECTING AND IMPLEMENTING	6
A	ORGANIZING AND PLANNING	5

CLUSTER V: AIRCRAFT ARRESTING SYSTEMS SPECIALISTS (GRP022)

NUMBER IN GROUP: 153

PERCENT OF SAMPLE: 9%

MAJOR COMMAND DISTRIBUTION: PACAF (26%), USAF (25%), AAC (20%), TAC (11%),  
ADCOM (4%), AFLC (4%), OTHER (10%)

LOCATION: CONUS (29%), OVERSEAS (71%)

DAFSC DISTRIBUTION: 54232 (8%), 54252 (69%), 54272 (20%), 54299 (1%)

AVERAGE GRADE: 4.2

JOB DIFFICULTY INDEX: 13.3

AVERAGE TIME IN CAREER FIELD: 72 MONTHS

AVERAGE TIME IN SERVICE: 82 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 47%

AMOUNT OF SUPERVISION: 32% SUPERVISE AN AVERAGE OF 4 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (10%), SO-SO (22%), INTERESTING (67%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 25%  
FAIRLY WELL OR BETTER 75%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 24%  
FAIRLY WELL OR BETTER 76%

AVERAGE NUMBER OF TASKS PERFORMED: 96

GROUP DIFFERENTIATING TASKS:

TASKS

R19 FILL OR BLEED HYDRAULIC SYSTEMS  
R51 RECHARGE ACCUMULATORS  
R8 ADJUST ZERO CAM INDEX  
R10 ATTACH HOOK CABLES/PENDANTS ON ARRESTING SYSTEMS  
R17 DETERMINE REGIME OF AN ENGAGEMENT

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

R	OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	66
B	DIRECTING AND IMPLEMENTING	7
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	6
A	ORGANIZING AND PLANNING	4
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	4

VA. BARRIER OPERATOR/MECHANICS (GRP209)

NUMBER IN GROUP: 69

PERCENT OF SAMPLE: 4%

MAJOR COMMAND DISTRIBUTION: AAC (33%), PACAF (33%), USAFE (13%), TAC (7%),  
OTHER (14%)

LOCATION: CONUS (22%), OVERSEAS (78%)

DAFSC DISTRIBUTION: 54232 (15%), 54252 (83%), 54272 (2%)

AVERAGE GRADE: 3.7

JOB DIFFICULTY INDEX: 10.0

AVERAGE TIME IN CAREER FIELD: 44 MONTHS

AVERAGE TIME IN SERVICE: 49 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 66%

AMOUNT OF SUPERVISION: 12% SUPERVISE AN AVERAGE OF 2 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (9%), SO-SO (29%), INTERESTING (62%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 29%  
FAIRLY WELL OR BETTER 71%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 25%  
FAIRLY WELL OR BETTER 75%

AVERAGE NUMBER OF TASKS PERFORMED: 56

GROUP DIFFERENTIATING TASKS:

TASKS

R51 RECHARGE ACCUMULATORS  
R41 MEASURE BRAKE WEAR ON ARRESTING SYSTEMS  
R22 INSPECT FAIRLEAD TUBES FOR TAPE TWIST  
R94 SYNCHRONIZE THE BAK-12  
R53 REEVE TAPE CONNECTORS ON THE BAK-9 OR BAK-12

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

R	OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	82
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	5



VB. NCOICs, BARRIER MAINTENANCE SECTION (GRP420)

NUMBER IN GROUP: 32

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: PACAF (28%), USAF (22%), TAC (16%), AAC (13%),  
AFLC (13%), OTHER (8%)

LOCATION: CONUS (28%), OVERSEAS (72%)

DAFSC DISTRIBUTION: 54232 (3%), 54252 (44%), 54272 (53%)

AVERAGE GRADE: 5.2

JOB DIFFICULTY INDEX: 16.6

AVERAGE TIME IN CAREER FIELD: 111 MONTHS

AVERAGE TIME IN SERVICE: 132 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 16%

AMOUNT OF SUPERVISION: 75% SUPERVISE AN AVERAGE OF 5 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (3%), SO-SO (13%), INTERESTING (78%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 16%  
FAIRLY WELL OR BETTER 84%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 13%  
FAIRLY WELL OR BETTER 87%

AVERAGE NUMBER OF TASKS PERFORMED: 134

GROUP DIFFERENTIATING TASKS:

TASKS

R46 PERFORM REQUIRED INSPECTIONS ON AIRCRAFT ARRESTING SYSTEMS  
R41 MEASURE BRAKE WEAR ON ARRESTING SYSTEMS  
B15 DIRECT MAINTENANCE OF ARRESTING BARRIER SYSTEMS  
A9 DETERMINE WORK PRIORITIES  
A2 ASSIGN PERSONNEL TO DUTIES

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

R	OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	46
B	DIRECTING AND IMPLEMENTING	14
A	ORGANIZING AND PLANNING	11
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	8
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	6

VC. BARRIER MAINTENANCE AND PORTABLE GENERATOR SET OPERATOR/MECHANICS (GRP512)

NUMBER IN GROUP: 23

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: PACAF (26%), USAF (22%), AFLC (17%), AAC (9%),  
HQ USAF (9%), TAC (9%), OTHER (8%)

LOCATION: CONUS (44%), OVERSEAS (56%)

DAFSC DISTRIBUTION: 54232 (4%), 54252 (83%), 54272 (9%)

AVERAGE GRADE: 4.0

JOB DIFFICULTY INDEX: 16.3

AVERAGE TIME IN CAREER FIELD: 64 MONTHS

AVERAGE TIME IN SERVICE: 70 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 46%

AMOUNT OF SUPERVISION: 17% SUPERVISE AN AVERAGE OF 4 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (13%), SO-SO (9%), INTERESTING (74%),  
NOT REPORTED (4%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 30%  
FAIRLY WELL OR BETTER 70%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 30%  
FAIRLY WELL OR BETTER 70%

AVERAGE NUMBER OF TASKS PERFORMED: 140

GROUP DIFFERENTIATING TASKS:

TASKS

R53 REEVE TAPE CONNECTORS ON THE BAK-9 OR BAK-12  
R57 REMOVE OR REPLACE ARRESTING SYSTEM GAUGES  
R23 INSPECT NITROGEN SYSTEM OF THE MA-1A  
R32 ISOLATE MALFUNCTIONS IN THE ELECTRICAL SYSTEMS OF THE MA-1A  
S33 REMOVE, CLEAN, OR REPLACE LUBE OIL FILTERS OR STRAINERS ON PORTABLE GENERATOR  
SYSTEMS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

R	OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	67
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	8
S	OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	6
B	DIRECTING AND IMPLEMENTING	5
K	MAINTAINING GASOLINE OR DIESEL ENGINES	4

VD. BARRIER MAINTENANCE TECHNICIANS (GRP1067)

NUMBER IN GROUP: 10 PERCENT OF SAMPLE: 0.5%

MAJOR COMMAND DISTRIBUTION: USAF (100%)

LOCATION: CONUS (0%), OVERSEAS (90%), NOT REPORTED (10%)

DAFSC DISTRIBUTION: 54252 (40%), 54272 (40%), NOT REPORTED (20%)

AVERAGE GRADE: 5.0 JOB DIFFICULTY INDEX: 16.6

AVERAGE TIME IN CAREER FIELD: 118 MONTHS

AVERAGE TIME IN SERVICE: 124 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 10%

AMOUNT OF SUPERVISION: 40% SUPERVISE AN AVERAGE OF 3 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (10%), SO-SO (0%), INTERESTING (90%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 0%  
FAIRLY WELL OR BETTER 100%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 20%  
FAIRLY WELL OR BETTER 80%

AVERAGE NUMBER OF TASKS PERFORMED: 95

GROUP DIFFERENTIATING TASKS:

TASKS

R62 REMOVE OR REPLACE BRAKE ASSEMBLIES ON THE BAK-12

R75 REMOVE OR REPLACE REWIND CLUTCHES ON THE BAK-9

R35 ISOLATE MALFUNCTIONS IN THE HYDRAULIC SYSTEM OF THE BAK-12

R79 REMOVE OR REPLACE SHAFT BEARINGS ON THE BAK-13

R39 ISOLATE MALFUNCTIONS ON THE FLUID COUPLINGS OF THE BAK-9, BAK-12

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

R	OPERATING AND MAINTAINING AIRCRAFT ARRESTING SYSTEMS	77
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	7
B	DIRECTING AND IMPLEMENTING	4



CLUSTER VI: ELECTRICAL POWER PRODUCTION NCOICs AND SUPERINTENDENTS (GRP012)

NUMBER IN GROUP: 159

PERCENT OF SAMPLE: 9%

MAJOR COMMAND DISTRIBUTION: AFCS (24%), ATC (15%), SAC (13%), TAC (10%), AAC (8%),  
USAFE (8%), AFSC (6%), PACAF (6%), OTHER (10%)

LOCATION: CONUS (59%), OVERSEAS (41%)

DAFSC DISTRIBUTION: 54232 (1%), 54252 (11%), 54272 (72%), 54299 (15%)

AVERAGE GRADE: 6.2

JOB DIFFICULTY INDEX: 12.5

AVERAGE TIME IN CAREER FIELD: 170 MONTHS

AVERAGE TIME IN SERVICE: 193 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 3%

AMOUNT OF SUPERVISION: 64 PERCENT SUPERVISE AN AVERAGE OF 5 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (9%), SO-SO (11%), INTERESTING (76%),  
NOT REPORTED (4%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 17%  
FAIRLY WELL OR BETTER 83%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 21%  
FAIRLY WELL OR BETTER 79%

AVERAGE NUMBER OF TASKS PERFORMED: 65

GROUP DIFFERENTIATING TASKS:

TASKS

- B1 CONDUCT INSPECTIONS
- B3 COUNSEL SUBORDINATES
- A2 ASSIGN PERSONNEL TO DUTIES
- A1 ACT AS TRAINING ADVISOR
- A13 ESTABLISH ORGANIZATION POLICIES, OFFICE INSTRUCTIONS (OIs),  
OR STANDARD OPERATING PROCEDURES (SOP's)

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

B DIRECTING AND IMPLEMENTING	28
A ORGANIZING AND PLANNING	22
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	14
C EVALUATING	13
D TRAINING	8



VIA. SUPERINTENDENTS (GRP352)

NUMBER IN GROUP: 59

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: AFCS (25%), SAC (12%), TAC (12%), PACAF (10%), AAC (7%),  
AFSC (7%), MAC (7%), AFLC (5%), ATC (5%), OTHER (10%)

LOCATION: CONUS (59%), OVERSEAS (41%)

DAFSC DISTRIBUTION: 54252 (3%), 54272 (73%), 54299 (4%)

AVERAGE GRADE: 6.8

JOB DIFFICULTY INDEX: 14.8

AVERAGE TIME IN CAREER FIELD: 188 MONTHS

AVERAGE TIME IN SERVICE: 218 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: NONE

AMOUNT OF SUPERVISION: 88% SUPERVISE AN AVERAGE OF 6 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (9%), SO-SO (14%), INTERESTING (75%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 12%  
FAIRLY WELL OR BETTER 88%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 12%  
FAIRLY WELL OR BETTER 88%

AVERAGE NUMBER OF TASKS PERFORMED: 94

GROUP DIFFERENTIATING TASKS:

TASKS

- A7 DETERMINE MAINTENANCE REQUIREMENTS FOR EQUIPMENT OR FACILITIES
- B46 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES
- A3 COORDINATE ELECTRICAL GENERATING REQUIREMENTS WITH USING AGENCIES
- C16 EVALUATE WORK SCHEDULES
- B57 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION TECHNICIANS (AFSC 54272)

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

B DIRECTING AND IMPLEMENTING	32
A ORGANIZING AND PLANNING	24
C EVALUATING	15
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVE OR TECHNICAL DATA	13

VIB. NCOICs, POWER PLANT WORK CENTER (GRP101)

NUMBER IN GROUP: 10

PERCENT OF SAMPLE: 0.5%

MAJOR COMMAND DISTRIBUTION: SAC (30%), AAC, AFCS, AFSC, MAC, PACAF, TAC, USAF,  
EACH 10%

LOCATION: CONUS (40%), OVERSEAS (60%)

DAFSC DISTRIBUTION: 54252 (20%), 54272 (80%)

AVERAGE GRADE: 5.9

JOB DIFFICULTY INDEX: 9.1

AVERAGE TIME IN CAREER FIELD: 174 MONTHS

AVERAGE TIME IN SERVICE: 186 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: NONE

AMOUNT OF SUPERVISION: 70% SUPERVISE AN AVERAGE OF 4 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (20%), SO-SO (20%), INTERESTING (60%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 40%  
FAIRLY WELL OR BETTER 60%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 40%  
FAIRLY WELL OR BETTER 50%  
NOT REPORTED 10%

AVERAGE NUMBER OF TASKS PERFORMED: 51

GROUP DIFFERENTIATING TASKS:

TASKS

A2 ASSIGN PERSONNEL TO DUTIES  
A29 SCHEDULE LEAVES OR PASSES  
A9 DETERMINE WORK PRIORITIES  
A1 ACT AS TRAINING ADVISOR  
E5 FILE CORRESPONDENCE

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

A ORGANIZING AND PLANNING	28
B DIRECTING AND IMPLEMENTING	23
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	13
V PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	11
C EVALUATING	8

VIC. LINE NCOIC/TECHNICIANS (GRP082)

NUMBER IN GROUP: 10

PERCENT OF SAMPLE: 0.5%

MAJOR COMMAND DISTRIBUTION: AFCS (30%), ATC (20%), SAC (20%), AAC (10%), MAC (10%),  
TAC (10%)

LOCATION: CONUS (80%), OVERSEAS (20%)

DAFSC DISTRIBUTION: 54252 (10%), 54272 (90%)

AVERAGE GRADE: 5.8

JOB DIFFICULTY INDEX: 11.0

AVERAGE TIME IN CAREER FIELD: 158 MONTHS

AVERAGE TIME IN SERVICE: 175 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: NONE

AMOUNT OF SUPERVISION: 90% SUPERVISE AN AVERAGE OF 6 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (0%), SO-SO (10%), INTERESTING (90%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 10%  
FAIRLY WELL OR BETTER 90%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 20%  
FAIRLY WELL OR BETTER 80%

AVERAGE NUMBER OF TASKS PERFORMED: 46

GROUP DIFFERENTIATING TASKS:

TASKS

B56 SUPERVISE WORK OF ELECTRICAL POWER PRODUCTION SPECIALISTS (AFSC 54252)  
A26 PLAN OR SCHEDULE WORK ASSIGNMENTS  
B12 DIRECT MAINTENANCE OF EMERGENCY GENERATOR SETS  
S8 INTERPRET WIRING DIAGRAMS OF PORTABLE GENERATOR SETS  
B9 DIRECT INSTALLATION OF PORTABLE GENERATOR SETS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

B	DIRECTING AND IMPLEMENTING	39
A	ORGANIZING AND PLANNING	21
S	OPERATE AND MAINTAIN PORTABLE GENERATOR SETS	15
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	10



VID. QUALITY CONTROL INSPECTORS (GRP043)

NUMBER IN GROUP: 33

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: AFCS (36%), SAC (21%), TAC (12%), AFSC (9%), ATC (9%),  
USAFE (9%), OTHER (4%)

LOCATION: CONUS (67%), OVERSEAS (33%)

DAFSC DISTRIBUTION: 54272 (79%), 54299 (18%), NOT REPORTED (3%)

AVERAGE GRADE: 6.6

JOB DIFFICULTY INDEX: 10.7

AVERAGE TIME IN CAREER FIELD: 173 MONTHS

AVERAGE TIME IN SERVICE: 204 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: NONE

AMOUNT OF SUPERVISION: 27% SUPERVISE AN AVERAGE OF 2 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (6%), SO-SO (9%), INTERESTING (76%),  
NOT REPORTED (9%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 15%  
FAIRLY WELL OR BETTER 85%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 24%  
FAIRLY WELL OR BETTER 76%

AVERAGE NUMBER OF TASKS PERFORMED: 33

GROUP DIFFERENTIATING TASKS:

TASKS

B1 CONDUCT INSPECTIONS  
B46 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES  
C5 EVALUATE COMPLIANCE WITH WORK STANDARDS  
C9 EVALUATE INSPECTION REPORTS OR PROCEDURES  
B49 PREPARE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

B	DIRECTING AND IMPLEMENTING	25
C	EVALUATING	25
A	ORGANIZING AND PLANNING	22
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	15



INDEPENDENT JOB TYPE A: PRIME POWER PLANT AND STAND-BY POWER PLANT OPERATORS (GRP046)

NUMBER IN GROUP: 49

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: ADCOM (47%), AFCS (22%), AAC (8%), MAC (6%), USAF (6%),  
SAC (4%), OTHER (7%)

DAFSC DISTRIBUTION: 54232 (20%), 54252 (80%)

AVERAGE GRADE: 3.4

JOB DIFFICULTY INDEX: 3.7

AVERAGE TIME IN CAREER FIELD: 35 MONTHS

AVERAGE TIME IN SERVICE: 39 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 80%

AMOUNT OF SUPERVISION: 4% SUPERVISE AN AVERAGE OF 1 SUBORDINATE

EXPRESSED JOB INTEREST: DULL (45%), SO-SO (18%), INTERESTING (33%),  
NOT REPORTED (4%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 67%  
FAIRLY WELL OR BETTER 33%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 53%  
FAIRLY WELL OR BETTER 47%

AVERAGE NUMBER OF TASKS PERFORMED: 27

GROUP DIFFERENTIATING TASKS:

TASKS

G38 START OR SHUTDOWN ENGINES  
G33 PERFORM PREOPERATIONAL INSPECTIONS OF POWER PLANTS  
E19 MAKE ENTRIES ON DAILY POWER PLANT OPERATING LOG (DIESEL-ELECTRICAL)  
FORMS (AF FORM 1167)  
G32 PERFORM POSTOPERATION INSPECTIONS OF POWER GENERATING UNITS  
G14 MONITOR ENGINE CONTROL INSTRUMENTS FOR PROPER INDICATIONS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

G	OPERATING POWER PLANTS	53
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	15
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	9
B	DIRECTING AND IMPLEMENTING	4
H	MAINTAINING ACCESSORY SYSTEMS	4

INDEPENDENT JOB TYPE B: UNINTERRUPTABLE POWER SYSTEMS SPECIALISTS (GRP152)

NUMBER IN GROUP: 17 PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: AFCS (94%), USAFE (6%)

LOCATION: CONUS (0), OVERSEAS (100%)

DAFSC DISTRIBUTION: 54232 (12%), 54252 (65%), 54272 (23%)

AVERAGE GRADE: 4.3 JOB DIFFICULTY INDEX: 16.9

AVERAGE TIME IN CAREER FIELD: 68 MONTHS

AVERAGE TIME IN SERVICE: 74 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 53%

AMOUNT OF SUPERVISION: 41% SUPERVISE AN AVERAGE OF 3 SUBORDINATES

EXPRESSED JOB INTEREST: DULL (24%), SO-SO (0), INTERESTING (71%),  
NOT REPORTED (5%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 24%  
FAIRLY WELL OR BETTER 76%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 12%  
FAIRLY WELL OR BETTER 88%

AVERAGE NUMBER OF TASKS PERFORMED: 101

GROUP DIFFERENTIATING TASKS:

TASKS

U33 START, OPERATE, OR SHUTDOWN ROTARY UPS  
U17 PERFORM PERIODIC MAINTENANCE OF STATIC UPS  
U1 CALIBRATE CONTROL CIRCUITRY OF ROTARY UPS  
U7 ISOLATE MALFUNCTIONS IN ROTARY UPS POWER SUPPLIES  
U9 ISOLATE MALFUNCTIONS IN STATIC UPS BATTERY BANKS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

U	OPERATE AND MAINTAIN UNINTERRUPTABLE POWER SYSTEMS (UPS)	30
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	13
N	MAINTAINING SWITCHGEAR	12
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	8
M	MAINTAINING ALTERNATORS AND EXCITERS	7

INDEPENDENT JOB TYPE C: FORMAL TRAINING INSTRUCTORS (GRP049)

NUMBER IN GROUP: 9

PERCENT OF SAMPLE: 0.5%

MAJOR COMMAND DISTRIBUTION: ATC (89%), USAFE (11%)

LOCATION: CONUS (89%), OVERSEAS (11%)

DAFSC DISTRIBUTION: 54232 (22%), 54252 (11%), 54272 (56%), 54299 (11%)

AVERAGE GRADE: 4.9

JOB DIFFICULTY INDEX: 9.5

AVERAGE TIME IN CAREER FIELD: 118 MONTHS

AVERAGE TIME IN SERVICE: 126 MONTHS

PERCENT MEMBERS IN FIRST ENLISTMENT: 22%

AMOUNT OF SUPERVISION: 22% SUPERVISE AN AVERAGE OF 5 SUBORDINATES

EXPRESSED JOB INTEREST: INTERESTING (100%)

PERCEIVED UTILIZATION OF TALENTS: LITTLE OR NOT AT ALL 11%  
FAIRLY WELL OR BETTER 89%

PERCEIVED UTILIZATION OF TRAINING: LITTLE OR NOT AT ALL 11%  
FAIRLY WELL OR BETTER 89%

AVERAGE NUMBER OF TASKS PERFORMED: 30

GROUP DIFFERENTIATING TASKS:

TASKS

D3 CONDUCT FORMAL CLASSROOM TRAINING  
D1 ADMINISTER OR SCORE TESTS  
D18 PREPARE LESSON PLANS  
D6 CONDUCT REMEDIAL TRAINING  
D17 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS

TIME SPENT ON DUTIES:

DUTY

AVERAGE TIME SPENT  
BY ALL MEMBERS

D	TRAINING	43
B	DIRECTING AND IMPLEMENTING	16
V	PERFORMING GENERAL ELECTRICAL POWER PRODUCTION TASKS	13
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES OR TECHNICAL DATA	8
A	ORGANIZING AND PLANNING	7